

				85					90					95			
Ala	Tyr	Asp	Phe	Ala	Ala	Tyr	Cys	Leu	Arg	Gly	Ser	Lys	Ala	Arg	Phe		
			100					105					110				
Asn	Phe	Pro	Asp	Ser	Pro	Pro	Glu	Ile	Pro	Cys	Ala	Ser	Ser	Leu	Ser		
		115					120					125					
Pro	Ser	Gln	Ile	Gln	Ala	Gly	Ala	Ala	Arg	Phe	Ala	Ala	Glu	Glu	Phe		
		130				135					140						
Gln	Met	Pro	Ser	Asp	Asp	Asp	Thr	Ala	Ser	Ser	Ser	Cys	Gly	Ser	Glu		
145				150					155						160		
Ala	Glu	Ser	Asp	Leu	Pro	Pro	Glu	Ile	Pro	Cys	Ala	Ser	Ser	Val	Ser		
			165					170						175			
Pro	Pro	Pro	Ile	Gln	Ala	Ala	Ala	Pro	Arg	Phe	Ala	Ala	Glu	Glu	Phe		
			180					185					190				
Arg	Leu	Pro	Ser	Asp	Glu	Asp	Thr	Ala	Ser	Ser	Ser	Cys	Gly	Ser	Val		
		195				200						205					
Thr	Glu	Ser	Asn	Ile	Asp	Ser	Gln	Gln	Ile	Ser	Ala	Glu	Gln	Gly	Ser		
	210				215						220						
Ala	Phe	Trp	Asp	Ser	Leu	Phe	Leu										
225				230													

&lt;210&gt; 1026

&lt;211&gt; 88

&lt;212&gt; PRT

&lt;213&gt; Pinus radiata

&lt;400&gt; 1026

His	Gln	Trp	His	Arg	Phe	Cys	Ser	Arg	Arg	Leu	Cys	Cys	Thr	Ala	Leu		
1			5					10					15				
His	Asn	Thr	Gln	Lys	Gln	Cys	Thr	Lys	Ser	Ala	Ala	Thr	Gly	Lys	Gly		
		20						25				30					
Gly	Ile	Lys	Arg	Ile	Arg	Arg	Gln	Gln	Glu	Ala	Ala	Pro	Ser	Pro	Pro		
		35				40					45						
Glu	Glu	Ala	Thr	Leu	Asn	Gln	Gln	Thr	Pro	Pro	Tyr	Arg	Gly	Val	Arg		
	50				55					60							
Arg	Arg	Asn	Trp	Gly	Lys	Trp	Val	Ser	Glu	Ile	Arg	Glu	Pro	Lys	Lys		
65				70					75					80			
Lys	Thr	Arg	Ile	Trp	Leu	Gly	Ser										
			85														

&lt;210&gt; 1027

&lt;211&gt; 501

&lt;212&gt; PRT

&lt;213&gt; Pinus radiata

&lt;400&gt; 1027

Met	Cys	Gly	Gly	Ala	Ile	Ile	Ser	Asp	Phe	Ile	Ile	Pro	Pro	Ala	Ser		
1			5					10						15			
Arg	Gly	Arg	Arg	Val	Thr	Ala	Arg	Asp	Ile	Trp	Pro	Asp	Phe	Asp	Lys		
		20						25				30					
Phe	Ser	Glu	Phe	Ile	Asn	Gly	Gly	Ala	Ala	Val	Glu	Ser	Phe	Asp	Val		
		35				40					45						
Ser	Val	Asp	Val	Asp	Asp	Asp	Glu	Glu	Asp	Ser	Asp	Asp	Asp	Glu	Phe		
	50				55					60							
Leu	Asp	Phe	Glu	Glu	Ser	Tyr	Gln	Asn	Lys	Lys	Lys	Lys	Gln	Gln	Gln		
65				70					75					80			
Pro	Ile	Ser	Pro	Thr	Lys	Gly	Phe	Glu	Leu	Pro	Leu	Ala	Arg	Gly	Leu		
			85					90					95				
Asp	Gly	Pro	Ala	Ala	Lys	Ser	Ala	Val	Arg	Lys	Arg	Lys	Asn	Leu	Tyr		
		100						105					110				
Arg	Gly	Ile	Arg	Gln	Arg	Pro	Trp	Gly	Lys	Trp	Ala	Ala	Glu	Ile	Arg		
		115				120						125					

Asp Pro Arg Lys Gly Ala Arg Val Trp Leu Gly Thr Phe Asn Thr Ala  
 130 135 140  
 Glu Glu Ala Ala Arg Ala Tyr Asp Ala Ala Ala Arg Lys Ile Arg Gly  
 145 150 155 160  
 Lys Lys Ala Lys Val Asn Phe Val Asp Glu Pro Pro Pro Ser Val Lys  
 165 170 175  
 Lys Glu Ser Asn Asn Ala Lys Gly Ser Lys Lys Gly Ser Ser Lys Lys  
 180 185 190  
 Ile Lys Ser Tyr Thr Thr Pro Lys Ala Asp Phe Phe Glu Gly Phe Lys  
 195 200 205  
 Thr Ala Asn Pro Ser Ile Ala Gln Tyr Asn Phe His Gln Lys Phe Pro  
 210 215 220  
 Asn Pro Ser Cys Asp Asp Leu Gly Tyr Gln Asn Pro Leu Ser Pro Leu  
 225 230 235 240  
 His Ala Ile Cys Asn Arg Asn Phe Ala Ala Lys Gln Ser Ser Ser Ala  
 245 250 255  
 Leu Pro Ala Tyr Ser Thr Glu Phe Ser Asp Phe Asp Asp Ser Glu Val  
 260 265 270  
 Asp Asn Leu Val Pro Gln Pro Ala Ser Phe Glu Pro Met Lys Asn Ile  
 275 280 285  
 Asn Lys Arg Lys Gly Tyr Asn Ser Phe Glu Ser Asp Thr Ser Ser Val  
 290 295 300  
 Ser Ala Asp Arg Ser His Ile Ser Trp Val Thr Glu Val Lys Thr Pro  
 305 310 315 320  
 Glu Ile Ser Ser Val Pro Lys Ala Glu Ala Asp Ser Asp His Tyr Asp  
 325 330 335  
 Phe Ala Asp Met Ser Thr Pro Val Ala Thr Ser Val Ser Ala Gly Ser  
 340 345 350  
 Pro Glu Val Gln Leu Pro Pro Phe Asn Asn Gly Leu Asn Lys Ser Pro  
 355 360 365  
 Ser Val Glu Asp Gly Val Ala Ala Glu Lys Ser Pro Lys Leu Glu Glu  
 370 375 380  
 Ser Ser Gln Leu Glu Ile Ser Glu Asp Leu Pro Ser Leu Glu Ser Tyr  
 385 390 395 400  
 Pro Trp Leu Phe Gln Met Pro Tyr Phe Glu Gly Leu Asp Gln Ser Leu  
 405 410 415  
 Gln Gly Val Gly Ile Gly Asp Ala Ser Phe Pro Asp Gly Glu Asn Asp  
 420 425 430  
 Leu Gln Leu Trp Ser Phe Asp Ala Val Pro Ile Ser Asp Ser Ala Tyr  
 435 440 445  
 Ile Ser Leu Glu Ser Leu Ala Cys Lys Gln Leu Val Ile Met Glu Ser  
 450 455 460  
 Arg Arg Leu Val Met Ala Ser Phe Cys Arg Pro Ser Ser Asn Arg Glu  
 465 470 475 480  
 Leu Val Ile Phe Pro Leu Phe Phe Phe Ile Gln Phe Asp Gly Ala Thr  
 485 490 495  
 Val Ile Ser Ala His  
 500

&lt;210&gt; 1028

&lt;211&gt; 134

&lt;212&gt; PRT

&lt;213&gt; Pinus radiata

&lt;400&gt; 1028

Met Ala Phe Ala Gly Thr Gln Gln Lys Cys Lys Ala Cys Glu Lys Thr  
 1 5 10 15  
 Val Tyr Val Val Asp Gln Leu Thr Ala Asp Gly Ser Val Phe His Lys  
 20 25 30  
 Ala Cys Phe Arg Cys His His Cys Asn Gly Thr Leu Lys Leu Ser Asn  
 35 40 45

Tyr Ser Ser Phe Glu Gly Val Leu Tyr Cys Lys Pro His Phe Asp Gln  
 50 55 60  
 Leu Phe Lys Arg Thr Gly Ser Leu Asp Lys Ser Phe Glu Gly Thr Pro  
 65 70 75 80  
 Lys Ala Val Lys Asn Glu Lys Leu Asn Asp Gly Glu Ile Lys Thr Pro  
 85 90 95  
 Asn Arg Val Ser Ala Leu Phe Ser Gly Thr Gln Glu Lys Cys Leu Ala  
 100 105 110  
 Cys Gly Asn Thr Val Tyr Pro Ile Glu Lys Val Ser Val Glu Gly Val  
 115 120 125  
 Gly Tyr His Lys Ala Cys  
 130

<210> 1029  
 <211> 76  
 <212> PRT  
 <213> Pinus radiata

<400> 1029  
 Met Asp Gly Ser Gln Asn Ser Gly Gly Asn Ala Val Pro Pro Phe Leu  
 1 5 10 15  
 Thr Lys Thr Tyr Asp Met Val Asp Asp Ser Ser Thr Asp Ser Ile Val  
 20 25 30  
 Ser Trp Ser Pro Gly Asn Asn Ser Phe Ile Val Trp Asn Pro Pro Glu  
 35 40 45  
 Phe Ala Arg Asp Leu Leu Pro Lys Tyr Phe Lys His Asn Asn Phe Ser  
 50 55 60  
 Ser Phe Val Arg Gln Leu Asn Thr Tyr Gly Phe Arg  
 65 70 75

<210> 1030  
 <211> 97  
 <212> PRT  
 <213> Pinus radiata

<400> 1030  
 His Glu Lys Lys Ala Val Leu Trp Asn Met Asp Thr Leu Lys Ala Lys  
 1 5 10 15  
 Gly Ser Leu Glu Glu His Ser Phe Leu Ile Thr Asp Val Arg Phe Ser  
 20 25 30  
 Pro Asn Ser Thr Arg Leu Ala Thr Ser Ser Phe Asp Arg Thr Val Lys  
 35 40 45  
 Val Trp Asp Ala Asp Asn Pro Asn Tyr Thr Leu Arg Thr Phe Ser Gly  
 50 55 60  
 His Thr Gly Ser Val Met Ser Leu Asp Phe His Pro Asn Asn Glu Asp  
 65 70 75 80  
 Leu Ile Cys Ser Cys Asp Gly Glu Ser Glu Val Arg Tyr Trp Ser Val  
 85 90 95  
 Asn

<210> 1031  
 <211> 117  
 <212> PRT  
 <213> Pinus radiata

<400> 1031  
 Met Gly Tyr Leu Gln Glu Leu Glu Asp Gln Ile Ile Gly Leu Gln Asn  
 1 5 10 15  
 Leu Val Lys Arg Asn Glu Arg Leu Tyr Gly Ser Gly Asn Thr Pro Ser  
 20 25 30

Gly Gly Val Ala Leu Pro Phe Ile Leu Val Gln Thr Arg Pro Gln Ala  
                   35                                  40                  45  
 Thr Val Glu Ile Glu Ile Ser Glu Asp Met Gln Leu Val His Phe Asp  
                   50                                  55                  60  
 Phe Asn Ser Thr Pro Phe Glu Leu His Asp Asp Ala Tyr Val Leu Lys  
                   65                                  70                  75                  80  
 Ala Met Gly Phe Cys Glu Lys Pro Phe Thr Asp Gly Met Asp Val Thr  
                   85                                  90                  95  
 Gly His Asp Ser Phe Ala Asn Gly Thr Gly Phe Gly Glu Asn Asn Met  
                   100                                  105                  110  
 Thr Ile Thr Asn Met  
                   115

<210> 1032  
 <211> 146  
 <212> PRT  
 <213> Pinus radiata

<400> 1032  
 Thr Arg Val Leu Leu Ile Asp Asp His Pro Leu Phe Arg Glu Gly Leu  
   1                                  5                                  10                  15  
 Ala Gly Ala Ile Gln Ala Glu Pro Asp Phe Glu Val Val Gly Gln Ala  
                   20                                  25                  30  
 Gly Thr Val Asp Glu Leu Arg Gly Leu Ala Pro Gln Ile Glu Pro Asp  
                   35                                  40                  45  
 Val Ala Ile Val Asp Leu Leu Met Pro Ser Val Ser Gly Ile Gly Val  
                   50                                  55                  60  
 Thr Arg Glu Leu Cys Glu Leu Leu Pro Arg Cys Arg Val Leu Gly Leu  
   65                                  70                  75                  80  
 Ser Ala Val Val Asp Ala Ala Ala Ile Ala Glu Met Leu Arg Ala Gly  
                   85                                  90                  95  
 Ala Ser Gly Phe Ala Leu Lys Thr Gln Pro Ala Pro Asp Ile Leu Asp  
                   100                                  105                  110  
 Ala Val Arg Arg Thr Val Ala Gly Glu Ser Tyr Leu Pro Pro Ser Val  
                   115                                  120                  125  
 Ser Arg Glu Ala Ile Asp Ala Glu Leu Ala Gly Gly Ala Pro Pro Ser  
                   130                                  135                  140  
 Leu Ala  
 145

<210> 1033  
 <211> 181  
 <212> PRT  
 <213> Pinus radiata

<400> 1033  
 Met Ser Ile Leu Pro Lys Ser Asp Ser Ile His Ile Arg Glu Val Trp  
   1                                  5                                  10                  15  
 Ala Asp Asn Leu Glu Glu Glu Phe Asn Leu Ile Arg Glu Ile Val Asp  
                   20                                  25                  30  
 Asp Tyr Pro Leu Ile Ala Met Asp Thr Glu Phe Pro Gly Ile Val Val  
                   35                                  40                  45  
 Arg Pro Val Gly Lys Phe Arg Thr Val Gln Glu Tyr Asn Tyr Glu Thr  
                   50                                  55                  60  
 Leu Arg Ser Asn Val Asp Val Leu Lys Leu Ile Gln Leu Gly Leu Thr  
   65                                  70                  75                  80  
 Phe Ser Asp Glu Asp Gly Asn Leu Pro Asn Cys Gly Thr Asp Arg Tyr  
                   85                                  90                  95  
 Cys Val Trp Gln Phe Asn Phe Arg Glu Phe Asn Ile Trp Glu Asp Ala  
                   100                                  105                  110  
 Tyr Ala Ser Asp Ser Ile Glu Leu Leu Arg Gln Ser Gly Ile Asp Phe



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      115      120      125
Lys Lys Asn Ser Glu Arg Gly Val Asp Ser His Leu Phe Ala Glu Leu
      130      135      140
Leu Met Ser Ser Gly Ile Val Leu Asn Glu Asn Val Arg Trp Ile Thr
145      150      155
Phe His Ser Gly Tyr Asp Phe Gly Tyr Leu Leu Lys Leu Val Met Asn
      165      170      175
Arg Ser Leu Pro Pro
      180

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<210> 1034
<211> 122
<212> PRT
<213> Pinus radiata

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      <400> 1034
Glu His Ala Cys Pro Met Ala Cys His Pro Gly Pro Cys Pro Pro Cys
1      5      10      15
Leu Val Ser Val Ser Lys Ser Cys Trp Cys Gly Ser Lys Thr Leu Val
      20      25      30
Ser Arg Cys Ser Val Leu Asn Lys Gly Thr Ser Thr Asn Ala Gly Val
      35      40      45
Gly Pro Val Leu Ser Cys Gly Gln Pro Cys Gly Arg Leu Leu Gly Cys
50      55      60
Glu Lys His Thr Cys Glu Gln Glu Cys His Pro Gly Pro Cys Pro Pro
65      70      75      80
Cys Asp Ile Val Asp Val Ala Lys Cys Tyr Cys Gly Arg Gln Glu Arg
      85      90      95
Gly Met Ala Cys Gly Thr Gly Ile Val Glu Thr Cys Val Val Glu Gly
      100      105      110
Glu Gly Ser Trp Glu Gly Arg Trp Gln Cys
      115      120

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<210> 1035
<211> 158
<212> PRT
<213> Pinus radiata

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      <400> 1035
Met Arg Ile Asn Glu Ala Thr Pro Lys Lys Ser Leu Gly Phe Gln Gln
1      5      10      15
Pro Tyr Ser Met Lys Gly Asn Tyr Tyr Thr Gln Ala Tyr Gly Gly Ala
      20      25      30
Val Ala Ser Gln Ala Phe Gln Ser Asp Asn Asp Pro Asn Asn Thr Thr
      35      40      45
Ile Phe Val Gly Gly Leu Asp Pro Asn Ala Thr Asp Glu Asp Leu Arg
50      55      60
Gln Val Phe Gly Pro Tyr Gly Glu Ile Val Tyr Val Lys Ile Pro Val
65      70      75      80
Gly Lys Gly Cys Gly Phe Val Gln Phe Thr Asn Arg Ser Ser Ala Glu
      85      90      95
Glu Ala Leu Gln Lys Leu His Gly Thr Val Ile Gly Gln Gln Ser Ile
      100      105      110
Arg Leu Ser Trp Gly Arg Ser Pro Ala Asn Lys Gln Thr Ala Ser Trp
      115      120      125
Gly Val Gln Pro Gln Ala Asp Pro Asn Gln Trp Asn Gly Gly Gly Ala
      130      135      140
Tyr Tyr Gly Tyr Gly Gln Gly Tyr Glu Ala Tyr Gly Tyr Ala
145      150      155

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<210> 1036

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<211> 126  
 <212> PRT  
 <213> Pinus radiata

<400> 1036  
 Gln Tyr Leu Ser Pro Gly Lys Ser Ala Pro Phe Trp Leu Cys Gln Asp  
 1 5 10 15  
 Met Ala Ile Thr Ser Gln Gln His His Met Asn Ala Leu Pro Tyr Asn  
 20 25 30  
 Glu Arg Ser Glu Lys Arg Pro Lys Phe Lys Gly Ile Arg Met Arg Lys  
 35 40 45  
 Trp Gly Ser Trp Gly Ser Glu Ile Arg Met Pro Lys Thr Arg Thr Lys  
 50 55 60  
 Ile Trp Leu Gly Ser Tyr Glu Thr Ala Glu Gln Ala Ala Arg Ala Tyr  
 65 70 75 80  
 Asp Ala Ala Leu Tyr Cys Leu Arg Gly Pro Asn Ala Lys Phe Asn Phe  
 85 90 95  
 Pro Asp Thr Val Pro Ser Ile Pro Ser Ala Phe Ser Leu Ser Arg His  
 100 105 110  
 Gln Ile Gln Leu Ala Ala Ala Arg Tyr Ala Arg Asp Glu Leu  
 115 120 125

<210> 1037  
 <211> 79  
 <212> PRT  
 <213> Pinus radiata

<400> 1037  
 Met Glu Pro Met Asp Ile Val Gly Lys Ser Lys Asp Asp Val Ser Leu  
 1 5 10 15  
 Pro Lys Ala Thr Met Phe Lys Ile Ile Lys Glu Met Leu Pro Pro Asp  
 20 25 30  
 Val Arg Val Ala Arg Asp Ala Gln Asp Leu Leu Val Glu Cys Cys Val  
 35 40 45  
 Glu Phe Ile Asn Leu Ile Ser Ser Glu Ser Asn Glu Val Cys Gly Arg  
 50 55 60  
 Glu Glu Lys Arg Thr Ile Ala Pro Glu His Val Leu Arg Ala Leu  
 65 70 75

<210> 1038  
 <211> 132  
 <212> PRT  
 <213> Pinus radiata

<400> 1038  
 Glu Ile Ser Leu Phe Trp Leu Gln Ser Phe Cys Lys Leu Pro Asn Met  
 1 5 10 15  
 Glu Asn Val Pro Glu Gln Glu Pro Asp Asn Thr Ile Ser Leu Pro His  
 20 25 30  
 Glu Asp Arg Gly Ser Arg Gln Phe Lys Gly Ile Arg Leu Arg Lys Trp  
 35 40 45  
 Gly Ser Trp Val Ser Glu Ile Arg Met Pro Arg Ser Arg Lys Lys Ile  
 50 55 60  
 Trp Leu Gly Ser Tyr Thr Thr Pro Glu Gln Ala Ala Arg Ala Tyr Asp  
 65 70 75 80  
 Ala Ala Val Tyr Cys Leu Arg Gly Arg Asn Ala Glu Phe Asn Phe Ser  
 85 90 95  
 Val Pro Asp Ile Pro Thr Ala Ser Pro Leu Ser Arg Glu Gln Ile Gln  
 100 105 110  
 His Ala Ala Ala Glu Tyr Ala Leu Gly Lys Ala Pro Ser Phe Pro  
 115 120 125

Ser Phe Ala Gly  
130

<210> 1039  
<211> 241  
<212> PRT  
<213> Pinus radiata

<400> 1039  
Met Asn Glu Pro Asp Glu His Ala Ala Ala Gln Leu Val Gln Lys Arg  
1 5 10 15  
Ser His Pro Leu Ala Glu Val Val Met Pro Ile Ser Val Arg Pro Leu  
20 25 30  
Ala Glu Lys Cys Gly Val Glu Ala Glu Glu Glu Arg Lys Arg Ala Ala  
35 40 45  
Glu His Lys Lys Gln Arg Ser Lys Asn Trp Thr Arg Ala Glu Thr Leu  
50 55 60  
Lys Leu Ile Arg Leu Arg Ala Glu Met Glu Pro Arg Phe Ala Arg Ser  
65 70 75 80  
Gly Arg Lys Ser Glu Leu Trp Glu Glu Ile Ala Glu Ala Leu Arg Arg  
85 90 95  
Glu Ser Val Val Arg Asp Ala Gln Arg Cys Arg Asp Lys Trp Glu Lys  
100 105 110  
Leu Thr Ala Ser Tyr Lys Glu Val Arg Asp Gly Gln Arg Asp Arg Gln  
115 120 125  
Asp Phe Pro Phe Phe Asp Glu Leu Asp Pro Leu Leu Ser Leu Lys Pro  
130 135 140  
Gln Lys Ala Ala Ala Ala Ala Ala Ala Ala Ala Thr Ala Ala Thr Ala  
145 150 155 160  
Ala Asn Phe Val Ser Ala Glu Thr Pro Ser Asn Phe Pro Thr Asp Asp  
165 170 175  
Glu Met Thr Glu Glu Gly Ser Pro Ala Gly Lys Arg Arg Lys Thr Thr  
180 185 190  
Pro Arg Gly Leu Ser Ala Thr Asp Leu Asp Ala Val Arg Glu Leu Leu  
195 200 205  
Glu Ser Leu Val Ser Arg Gln Gln Arg Phe Phe Val Asp Leu Leu Asp  
210 215 220  
Ser Met Glu Arg Lys Glu Glu Ile Arg Glu Arg Ile Arg Gln Glu Lys  
225 230 235 240  
Glu

<210> 1040  
<211> 182  
<212> PRT  
<213> Pinus radiata

<400> 1040  
Met Val Tyr Ile Val Leu Leu Asp Leu Cys Glu Ser Val Gln Pro Pro  
1 5 10 15  
Gln Gly Ser Leu Gln Glu Phe Ser Asn Ser Ile Gln Glu Glu Gln Ala  
20 25 30  
Met Val Asp Leu Met Pro Lys Asp Ser Arg Gln Thr Met Ile Asn Asn  
35 40 45  
Thr Thr Ile Phe Val Gly Arg Leu Asp Pro Asn Ala Thr Asp Glu Asp  
50 55 60  
Leu Arg Gln Val Phe Gly Gln Tyr Gly Asp Leu Val Ser Ile Lys Ile  
65 70 75 80  
Pro Val Gly Lys Gly Cys Gly Phe Val Gln Phe Ala Asn Arg Ala Cys  
85 90 95  
Ala Glu Glu Ala Leu Gln Arg Leu His Gly Thr Val Ile Arg Gln Gln

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      100      105      110
Thr Ile Arg Leu Ser Trp Gly Arg Ser Pro Ala Asn Lys Gln Asn Ser
      115      120      125
Gln Pro Gln Gly Gln Gln Pro Gln Ser Asp Pro Asn Gln Trp Asn Gly
      130      135      140
Ala Tyr Tyr Gly Gln Gly Tyr Glu Ser Tyr Gly Tyr Ala Pro Pro Pro
145      150      155      160
Gln Asp Pro Ala Met Tyr Ala Tyr Gly Gly Tyr Pro Gly Tyr Gly Asn
      165      170      175
Tyr Asn Gln Gln Val Ser
      180

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<210> 1041
<211> 66
<212> PRT
<213> Pinus radiata

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<400> 1041
Thr Ser Tyr His Arg Pro Cys Phe Lys Cys Cys His Gly Gly Cys Val
 1      5      10      15
Ile Ser Pro Ser Asn Tyr Val Ala His Glu Gly Arg Leu Tyr Cys Arg
      20      25      30
His His Ser Ser Gln Leu Phe Arg Glu Lys Gly Asn Phe Ser Gln Leu
      35      40      45
Ser Lys Ala Thr Pro Thr Lys Gly Val Thr Glu Asn Ser Asp Thr Asp
      50      55      60
Asp Lys
65

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<210> 1042
<211> 152
<212> PRT
<213> Pinus radiata

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<400> 1042
Val Gly Gly Gly Gly Gly Gly Lys Gly Ser Pro Tyr Arg Gly Val Arg
 1      5      10      15
Met Arg Lys Trp Gly Lys Trp Val Ser Glu Val Arg Glu Pro Asn Lys
      20      25      30
Arg Ser Arg Ile Trp Leu Gly Ser Tyr Ser Thr Pro Glu Ala Ala Ala
      35      40      45
Arg Ala Tyr Asp Thr Ala Val Phe Tyr Leu Arg Gly Pro Ser Ala Thr
      50      55      60
Leu Asn Phe Pro Glu Glu Ala Arg Lys Glu Gln Gln Ser Asp Leu Arg
      65      70      75      80
Leu Ser Gln Leu Gly Glu Leu Ser Pro Ser Ser Ile Gln Arg Arg Ala
      85      90      95
Ala Glu Val Gly Ala Ala Val Asp His Ala Met Gln Ala Gly Pro Val
      100      105      110
Pro Ala Gln Thr Leu Arg Glu Ile Asn Gln Glu Asn Asp Met Lys Asn
      115      120      125
Ala Leu Ser Ser Lys Leu Ser Glu Gly Asn Asn Phe Lys Ile Glu Ala
      130      135      140
Lys Asn Asn Met Arg Gln Gln Gly
145      150

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<210> 1043
<211> 193
<212> PRT
<213> Pinus radiata

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<400> 1043  
 Met Ala Phe Ala Gly Thr Thr Gln Lys Cys Lys Ala Cys Glu Lys Thr  
 1 5 10 15  
 Val Tyr Leu Val Asp Gln Leu Thr Ala Asp Asn Ser Val Phe His Lys  
 20 25 30  
 Ser Cys Phe Arg Cys His His Cys Asn Gly Thr Leu Lys Leu Ser Asn  
 35 40 45  
 Tyr Ser Ser Phe Glu Gly Val Leu Tyr Cys Lys Pro His Phe Asp Gln  
 50 55 60  
 Leu Phe Lys Arg Thr Gly Ser Leu Asp Lys Ser Phe Glu Ala Ile Pro  
 65 70 75 80  
 Arg Ala Ser Arg Asn Asp Lys Met His Glu Asn Glu Asn Arg Thr Pro  
 85 90 95  
 Ser Arg Val Ser Ala Leu Phe Ser Gly Thr Gln Asp Lys Cys Val Ala  
 100 105 110  
 Cys Gly Lys Thr Val Tyr Pro Ile Glu Lys Val Ala Val Asp Gly Thr  
 115 120 125  
 Ser Tyr His Arg Pro Cys Phe Lys Cys Cys His Gly Gly Cys Val Ile  
 130 135 140  
 Ser Pro Ser Asn Tyr Val Ala His Glu Gly Arg Leu Tyr Cys Arg His  
 145 150 155 160  
 His Ser Ser Gln Leu Phe Arg Glu Lys Gly Asn Phe Ser Gln Leu Ser  
 165 170 175  
 Lys Ala Thr Pro Thr Lys Gly Val Thr Glu Asn Ser Asp Thr Asp Asp  
 180 185 190  
 Lys

<210> 1044  
 <211> 121  
 <212> PRT  
 <213> Pinus radiata

<400> 1044  
 Met Val Lys Pro Leu Pro Lys Gln Ser Ser Pro Ser Gly Ser Glu Asn  
 1 5 10 15  
 Cys Gln Ile Lys Ser Arg Gln Phe Lys Gly Ile Arg Leu Arg Lys Trp  
 20 25 30  
 Gly Lys Trp Val Ser Glu Ile Arg Met Pro Asn Ser Arg Ala Lys Ile  
 35 40 45  
 Trp Leu Gly Ser Tyr Asp Ser Pro Glu Lys Ala Ala Arg Ala Tyr Asp  
 50 55 60  
 Phe Ala Leu Tyr Cys Leu Arg Gly Ser Lys Ala Thr Phe Asn Phe Pro  
 65 70 75 80  
 Asp Ser Pro Pro Glu Ile Pro Cys Ala Ser Asp Leu Ser Pro Pro Gln  
 85 90 95  
 Ile Gln Ala Ala Ala Ala Arg Phe Ala Thr Glu Asp Phe Arg Leu Pro  
 100 105 110  
 Ser Glu Glu Asp Ala Ala Ser Ser Ser  
 115 120

<210> 1045  
 <211> 131  
 <212> PRT  
 <213> Pinus radiata

<400> 1045  
 Met Glu Ile Arg Leu Gln Gln Glu Asn Asp Gln Asp Ile Ala Pro Pro  
 1 5 10 15  
 His Glu Asp Arg Val Ser Arg Gln Phe Lys Gly Val Arg Pro Arg Lys  
 20 25 30

Trp Gly Ile Trp Val Ser Glu Ile Arg Met Pro Arg Ser Arg Gln Lys  
           35                          40                          45  
 Ile Trp Leu Gly Ser Tyr Lys Lys Pro Glu Gln Ala Ala Arg Ala Tyr  
           50                          55                          60  
 Asp Ala Ala Val Tyr Cys Leu Arg Gly Ser Asn Ala Lys Phe Asn Phe  
           65                          70                          75                          80  
 Pro Asn Ser Val Pro Asp Ile Pro Ser Ala Ser Ser Leu Ser Arg Gln  
                           85                          90                          95  
 Gln Ile Gln Leu Ala Ala Ala Lys Tyr Ala Leu Asp Gln Ser Pro Ser  
                           100                          105                          110  
 Ser Pro Pro Ser Leu Asn Asn Asn Lys Glu Glu Pro Ala Ser Pro Ser  
                           115                          120                          125  
 Gln Ser Ser  
           130

<210> 1046  
 <211> 102  
 <212> PRT  
 <213> Pinus radiata

<400> 1046  
 Met Thr Gln Gln Thr Thr Ser Pro Thr Val Ser Pro Ala Ala Leu Ala  
   1                          5                          10                          15  
 Leu Pro Thr Ser Ala Ser Ser Thr Ser Ala Lys Ser Ala Ala Val Pro  
           20                          25                          30  
 Val Pro Ala Gln Ala Asn Pro Arg Lys Arg Pro Arg Ser Asp Leu Ser  
           35                          40                          45  
 Ala Glu Glu Lys Arg Glu Ala Arg Ala His Arg Asn Arg Ile Ala Ala  
           50                          55                          60  
 Gln Asn Ser Arg Asp Lys Arg Lys Gln Gln Phe Thr Ser Leu Glu Gln  
           65                          70                          75                          80  
 Arg Val Ile Asp Leu Glu Asn Glu Asn Arg Gln Leu Arg Asp Ala Leu  
                           85                          90                          95  
 Ala Thr Ser Gln Pro Asn  
                           100

<210> 1047  
 <211> 66  
 <212> PRT  
 <213> Pinus radiata

<400> 1047  
 Leu Leu Thr Ile Phe Glu Ala Val Tyr Val His Lys Gly Ile Val Asn  
   1                          5                          10                          15  
 Ala Ala Lys Val Leu Asn Leu Thr Pro Ser Ala Ile Ser Gln Ser Ile  
           20                          25                          30  
 Gln Lys Leu Arg Val Ile Phe Pro Asp Pro Leu Phe Ile Arg Lys Gly  
           35                          40                          45  
 Gln Gly Val Thr Pro Thr Ala Phe Ala Met His Leu His Glu Tyr Ile  
           50                          55                          60  
 Ser Gln  
           65

<210> 1048  
 <211> 106  
 <212> PRT  
 <213> Pinus radiata

<400> 1048  
 Met Lys Gly Pro Gln Gly Ile Ser Asn Ala Gln Asn Thr Cys Thr Lys  
   1                          5                          10                          15

Phe Arg Met Pro Thr Ser Glu Asn Leu Ile Pro Ile Arg Leu Asp Ile  
                   20                  25                  30  
 Glu Ile Asp Gly Leu Arg Leu Lys Asp Ala Phe Thr Trp Asn Val Asn  
                   35                  40                  45  
 Asp Pro Asp Ser Glu Ile His Leu Phe Ala Arg Arg Thr Ile Lys Asp  
                   50                  55                  60  
 Leu Lys Tyr Pro Gly Ser Phe Ile Thr Pro Val Val Gln Ser Ile Gln  
                   65                  70                  75                  80  
 Ala Gln Leu Ala Glu Phe Arg Ser Phe Glu Gly Gln Glu Met Asn Thr  
                   85                  90                  95  
 Gly Gln Lys Val Leu Pro Leu Lys Leu Pro  
                   100                  105

&lt;210&gt; 1049

&lt;211&gt; 134

&lt;212&gt; PRT

&lt;213&gt; Pinus radiata

&lt;400&gt; 1049

Met Glu Gly Ser Gln Asn Gly Ser Ser Asn Ala Pro Pro Pro Phe Leu  
   1                  5                  10                  15  
 Thr Lys Thr Tyr Asp Met Val Asp Asp Pro Ala Thr Asn Ala Met Val  
                   20                  25                  30  
 Ser Trp Ser Pro Gly Ser Asn Ser Phe Ile Val Trp Asn Pro Thr Glu  
                   35                  40                  45  
 Phe Ser Arg Val Leu Leu Pro Thr Tyr Phe Lys His Ser Asn Phe Ser  
                   50                  55                  60  
 Ser Phe Val Arg Gln Leu Asn Thr Tyr Gly Phe His Lys Ile Asp Pro  
                   65                  70                  75                  80  
 Glu Arg Trp Glu Phe Ala Asn Glu Gly Phe Leu Arg Gly His Arg His  
                   85                  90                  95  
 Leu Leu Lys Asn Ile His Arg Arg Lys Pro Val His Ser His Ser Gln  
                   100                  105                  110  
 Gln Lys Gly Glu Ser Leu Ser Gly Gly Ser Cys Val Glu Ile Lys Gln  
                   115                  120                  125  
 Leu Glu Asp Glu Thr Glu  
                   130

&lt;210&gt; 1050

&lt;211&gt; 220

&lt;212&gt; PRT

&lt;213&gt; Pinus radiata

&lt;400&gt; 1050

Met Val Leu Tyr Glu Leu Leu His Val Gln Gln Ile Gln Gln Ile Gln  
   1                  5                  10                  15  
 Gln Gln Gln Phe Gln Leu Gln Gln Gln Gln Ile Ala Ala Ala Ala Ser  
                   20                  25                  30  
 Ile His His Met Gly Arg Asn Pro Leu Gly Pro Arg Asp Gln Pro Met  
                   35                  40                  45  
 Lys Leu His Gly Ser Ser Leu Ser Lys Pro Ala Lys Leu Tyr Arg Gly  
                   50                  55                  60  
 Val Arg Gln Arg His Trp Gly Lys Trp Val Ala Glu Ile Arg Leu Pro  
                   65                  70                  75                  80  
 Arg Asn Arg Thr Arg Leu Trp Leu Gly Thr Phe Asp Thr Ala Glu Glu  
                   85                  90                  95  
 Ala Ala Met Ala Tyr Asp Lys Ala Ala Tyr Arg Leu Arg Gly Asp Tyr  
                   100                  105                  110  
 Ala Arg Leu Asn Phe Pro His Leu Lys His His Leu Glu Ala Asn Ser  
                   115                  120                  125  
 Phe Ala Pro Trp Thr Gly Asn Ser Val Leu Pro Ser Ser Val Asp Ala

130	135	140
Lys Leu Gln Ala Ile Cys Gln Ser Leu Lys Gln Pro Leu Glu Ser Met		
145	150	155
Ser Lys Thr Glu Glu Ser Glu Glu Ile Ser Cys Ala Tyr Glu Asn Ser		160
	165	170
Gly Ser Leu Gly Ser Val Arg Asp Glu Asp Ala Lys Lys Asn Asp Val		175
	180	185
Val Ser Val Lys Ser Glu Thr Cys Asp Ser Asp Ser Ser Asp Asp Ser		190
	195	200
Thr Ile Thr Ala Leu Asn Ser Ser Gly Asp Gln Asn		205
210	215	220

&lt;210&gt; 1051

&lt;211&gt; 219

&lt;212&gt; PRT

&lt;213&gt; Pinus radiata

<400> 1051
Arg Ile Glu Ala Pro Gly Arg Arg Thr Asn Pro Ala Ala Val Thr Trp
1 5 10 15
Ala Ala Ala His Phe Ser Val Lys Glu Gln Asp Arg Phe Leu Pro Ile
20 25 30
Ala Asn Val Gly Arg Ile Met Lys Lys Ala Leu Pro Ala Asn Gly Lys
35 40 45
Val Ser Lys Asp Ala Lys Glu Thr Val Gln Glu Cys Val Ser Glu Phe
50 55 60
Ile Ser Phe Ile Thr Gly Glu Ala Ser Asp Lys Cys Gln Arg Glu Lys
65 70 75 80
Arg Lys Thr Ile Asn Gly Asp Asp Leu Leu Trp Ala Met Thr Thr Leu
85 90 95
Gly Phe Glu Asp Tyr Val Glu Pro Leu Lys Ile Tyr Leu His Lys Tyr
100 105 110
Arg Glu Met Glu Gly Glu Lys Val Ser Met Ala Lys Gln Gly Asp Pro
115 120 125
Thr Pro Ser Lys Glu Gly Asn Asn Ala Ile Asn Gly Ser Ser Ile Glu
130 135 140
Asn Pro Asn Ala Asn Ala Tyr Ser Gly Leu Asn Pro Gly Gly Tyr Asn
145 150 155 160
Arg Val Gln Ser Gln Ser Leu Pro His Met Gln Gln Ala Ala Tyr Gly
165 170 175
Gln Pro Pro Gly Gly Met Val Tyr Gly His His Gly His Ile Met Gly
180 185 190
Ala Tyr Asn Met Thr Ala Pro Asn Ser Ser Gly Gly Asn Ser Ser Gly
195 200 205
Gln Gln Gln Gln Ala Pro Arg Gly Gln Trp
210 215

&lt;210&gt; 1052

&lt;211&gt; 100

&lt;212&gt; PRT

&lt;213&gt; Pinus radiata

<400> 1052
Gly Cys Thr Thr Val Val Glu Thr Leu Ala Lys Trp Gln Glu Leu Asn
1 5 10 15
Ser Gln Val Glu Ser Ser Lys Asp Gly Ala Lys Arg Leu Arg Lys Ala
20 25 30
Pro Ala Lys Gly Ser Lys Lys Gly Cys Met Lys Gly Lys Gly Gly Pro
35 40 45
Asp Asn Gly Arg Cys Asn Tyr Arg Gly Val Arg Gln Arg Thr Trp Gly
50 55 60



Lys Trp Val Ala Glu Ile Arg Glu Pro Asn Arg Gly Ser Arg Leu Trp  
 65 70 75 80  
 Leu Gly Thr Phe Ser Ser Ala Glu Glu Ala Ala Arg Ala Tyr Asp Gln  
 85 90 95  
 Ala Ala Arg Val  
 100

<210> 1053  
 <211> 117  
 <212> PRT  
 <213> Pinus radiata

<400> 1053  
 Met Glu Ile Val Gly Lys Ala Lys Glu Asp Val Ser Leu Pro Lys Ala  
 1 5 10 15  
 Thr Met Thr Lys Ile Ile Lys Glu Met Leu Pro Ala His Val Arg Val  
 20 25 30  
 Thr Arg Asp Ala Gln Asp Leu Leu Val Glu Cys Cys Val Glu Phe Ile  
 35 40 45  
 Asn Leu Ile Ser Ser Glu Ser Asn Asp Ile Cys Tyr Lys Glu Glu Lys  
 50 55 60  
 Arg Thr Ile Ala Pro Glu His Val Leu Glu Ser Leu Lys Ile Leu Gly  
 65 70 75 80  
 Phe Gly Ser Tyr Ile Arg Glu Val Lys Ala Ala Tyr Glu Gln His Arg  
 85 90 95  
 Ile Glu Asn Trp Asp Cys Pro Arg Ala Gly Thr Arg Trp Ser Lys Asn  
 100 105 110  
 Arg Leu Glu Met Thr  
 115

<210> 1054  
 <211> 161  
 <212> PRT  
 <213> Pinus radiata

<400> 1054  
 Asn Ile Asn Gly Val Ala Gly Gly Val Ala Lys Glu Lys Lys Val Asn  
 1 5 10 15  
 Phe Pro Trp Cys Ala Leu Glu Lys Gln Val Gly Thr Ser Ser Phe Asp  
 20 25 30  
 Pro Asn Leu Ala Ser Ser Lys Gln Ala Met Asp Ser Leu Ile Met Gln  
 35 40 45  
 Gln Leu Pro Thr Phe Leu Gln Tyr Cys Lys Asp Leu Glu Glu Gly Arg  
 50 55 60  
 Gln Ser Trp Phe Met His Lys Lys Glu Ala Thr Trp Arg Leu Ser Arg  
 65 70 75 80  
 Leu Glu Gln Gln Leu Glu Ser Glu Lys Ala Arg Lys Arg Arg Glu Lys  
 85 90 95  
 Ile Glu Glu Val Gly Ser Lys Ile Arg Ala Leu Arg Glu Glu Ile  
 100 105 110  
 Thr Tyr Leu Asp Lys Leu Glu Thr Glu Cys Arg Glu Gln Leu Ser Ser  
 115 120 125  
 Leu Gln Arg Asp Ala Glu Met Lys Glu Ala Lys Met Met Glu Leu Trp  
 130 135 140  
 Ala Thr Lys His Leu Gln Leu Thr Lys Phe Val Asp Ser Ala Leu Ser  
 145 150 155 160  
 Val

<210> 1055  
 <211> 396

&lt;212&gt; PRT

&lt;213&gt; Pinus radiata

&lt;400&gt; 1055

```

Met Ala Arg Glu Thr Asn Ser Phe Ala Leu Leu Gly Gly Asp Asp Asp
 1           5           10           15
Gln Gly Asp Asp Asp Leu Met Ala Leu Ile Asn Ser Ala Ala Thr Leu
 20           25           30
Lys Pro Glu Lys Lys Pro Lys Thr Thr Ala Lys Lys Asn Gly Gln Gln
 35           40           45
Gln Pro Pro Pro Pro Gln Ser Gln Pro Ala Lys Leu Pro Ser Lys Pro
 50           55           60
Leu Pro Pro Ala Glu Ala Val Arg Ala Asp Arg Gly Arg Gly Arg Gly
 65           70           75           80
Gly Arg Gly Arg Gly Gly Gly Arg Gly Ser Arg Phe Glu Gly Gly Glu
 85           90           95
Tyr Asn Thr Glu Ser Asn Gly Tyr Gly Gly Gly Gly Gly Phe Gly Gly
 100          105          110
Gly Arg Gly Trp Gly Arg Asp Glu Asp Ser Gly Asn Arg Gly Trp Gly
 115          120          125
Arg Glu Glu Asp Thr Gly Gly Arg Gly Trp Gly Arg Ser Asn Gly Glu
 130          135          140
Glu Asp Thr Gly Gly Arg Gly Trp Ser Arg Ser Asn Gly Glu Asp Asp
 145          150          155          160
Ala Ala Ala Gly Gly Gln Ser Arg Gly Arg Gly Arg Gly Arg Gly
 165          170          175          180
Arg Gly Arg Gly Phe Gly Gly Arg Gly Ser Gly Arg Phe Gly Gly Gly
 185          190
Gly Asp Ser Tyr Gly Tyr Asp Ala Asn Gly Gln Asp Arg Pro Pro Arg
 195          200          205
Gln Gln Phe Glu Asp Thr Asn Thr Phe Thr Gly Thr Asp Asn Trp Asp
 210          215          220
Thr Pro Glu Val Ser Val Val Asp Glu Ala Lys Asn Val Glu Pro Glu
 225          230          235          240
Gln Lys Lys Pro Glu Glu Glu Ala Thr Pro Gly Val Thr Ser Glu Asn
 245          250          255
Lys Asp Asn Lys Glu Glu Glu Asp Asn Glu Met Thr Leu Asp Glu Tyr
 260          265          270
Glu Lys Leu Leu Asn Glu Lys Arg Lys Thr Leu Glu Ala Leu Lys Asn
 275          280          285
Ala Glu Arg Lys Val Ile Leu Asp Arg Asp Phe Glu Lys Met Gln Leu
 290          295          300
Val Asp Lys Lys Asn Asp Gly Ile Phe Ile Lys Leu Asn Ser Glu Lys
 305          310          315          320
Glu Arg Gln Arg Lys Lys Glu Thr Leu Glu Lys Glu Glu Arg Ala Arg
 325          330          335
Lys Ser Val Ser Ile Asn Glu Phe Leu Lys Pro Ala Asp Gly Glu Arg
 340          345          350
Tyr Phe Thr Pro Ser Gly Thr Arg Gly Arg Gly Arg Gly Arg Gly Arg
 355          360          365
Gly Arg Gly Asp Gly Val Ser Thr Arg Gly Gly Phe Gly Gly Arg Tyr
 370          375          380
Ser Asp Ala Asp Gln Val Ala Ala Pro Cys Ile Glu
 385          390          395

```

&lt;210&gt; 1056

&lt;211&gt; 120

&lt;212&gt; PRT

&lt;213&gt; Pinus radiata

&lt;400&gt; 1056

```

Thr Trp Ala Gln Glu Glu Lys Ser Pro Arg Ala Ile Gly Gly Glu
 1          5          10          15
Lys Gly Gly Arg Gly Leu Arg Gln Phe Ser Met Lys Val Cys Gln Lys
          20          25          30
Val Glu Ser Lys Gly Arg Thr Thr Tyr Asn Glu Val Ala Asp Glu Leu
          35          40          45
Val Ala Glu Tyr Ala Asn Pro Asn Ser Ala Leu Ile Ser Pro Asp Gln
          50          55          60
Gln Gln Tyr Asp Glu Lys Asn Ile Arg Arg Arg Val Tyr Asp Ala Leu
65          70          75          80
Asn Val Leu Met Ala Met Asp Ile Ile Ser Lys Asp Lys Lys Glu Ile
          85          90          95
Gln Trp Lys Gly Leu Pro Ser Thr Ser Pro Asn Asp Leu Glu Asp Leu
          100          105          110
Lys Ala Lys Arg Met Gly Leu Arg
          115          120

```

&lt;210&gt; 1057

&lt;211&gt; 78

&lt;212&gt; PRT

&lt;213&gt; Pinus radiata

&lt;400&gt; 1057

```

Pro Met Lys Leu Tyr Arg Gly Val Arg Gln Arg His Trp Gly Lys Trp
 1          5          10          15
Val Ala Glu Ile Arg Leu Pro Arg Asn Arg Thr Arg Leu Trp Leu Gly
          20          25          30
Thr Phe Asp Thr Ala Glu Asp Ala Ala Leu Ala Tyr Asp His Glu Ala
          35          40          45
Tyr Lys Leu Arg Gly Glu Asn Ala Arg Leu Asn Phe Pro His Leu Phe
          50          55          60
Leu Asn Lys Gly Ser Thr Ser Pro Lys Ala Cys Ser Val Ala
65          70          75

```

&lt;210&gt; 1058

&lt;211&gt; 171

&lt;212&gt; PRT

&lt;213&gt; Pinus radiata

&lt;400&gt; 1058

```

Ser Phe Ser Cys Arg Ile Arg His Gln Thr Glu Pro Thr Leu Ile Leu
 1          5          10          15
Ile Asp Thr Ala Gly Cys Asp Met Glu Glu Lys Lys Asp Asp Glu Asp
          20          25          30
Ser Thr Met Asn Glu Gly Glu Ala Thr Val Thr Leu Met His Ala Lys
          35          40          45
Lys Leu Leu Glu Ser Gly Val Asn Pro Ser Asp Ile Gly Ile Ile Thr
          50          55          60
Pro Tyr Ala Ala Gln Val Gly Leu Leu Lys Ile Met Arg Ser Lys Glu
65          70          75          80
Met Lys Leu Lys Asp Leu Glu Ile Ser Thr Val Asp Gly Phe Gln Gly
          85          90          95
Arg Glu Lys Glu Ala Ile Val Ile Ser Met Val Arg Ser Asn Ala Lys
          100          105          110
His Glu Val Gly Phe Leu Asn Asp Arg Arg Arg Met Asn Val Ala Val
          115          120          125
Thr Arg Ala Arg Arg Gln Cys Cys Ile Ile Cys Asp Thr Glu Thr Val
          130          135          140
Ser Ser Asp Lys Phe Leu Lys Arg Leu Val Glu Tyr Phe Glu Glu His
145          150          155          160
Ala Glu Tyr Leu Ser Ala Ser Glu Tyr Leu Thr

```

165

170

<210> 1059  
 <211> 94  
 <212> PRT  
 <213> Pinus radiata

<400> 1059  
 Glu Lys Cys Ser Asp Gln Val Ser Gly Ser Thr Ser Ser Cys Arg Ile  
 1 5 10 15  
 Arg His Glu Leu Gly Tyr Ser Arg Ser Ala Lys Arg Cys Lys Glu Lys  
 20 25 30  
 Trp Glu Asn Ile Asn Lys Tyr Phe Arg Lys Ala Lys Glu Ser Asn Lys  
 35 40 45  
 Lys Arg Pro Glu Asn Ala Lys Thr Cys Pro Tyr Phe His Gln Leu Asp  
 50 55 60  
 Ala Leu Tyr Lys Lys Arg Asn Leu Gly Asn Arg His Asn Lys Ile Met  
 65 70 75 80  
 Val Leu Ser Ile Phe Ser Val Ala Ser Thr Gly Leu Phe Met  
 85 90

<210> 1060  
 <211> 174  
 <212> PRT  
 <213> Pinus radiata

<400> 1060  
 Met Ala Pro Ser Asn Asn Arg Arg Asp Asp Asn Gly Ala Arg Gly Val  
 1 5 10 15  
 His Phe Arg Gly Val Arg Lys Arg Pro Trp Gly Arg Tyr Ala Ala Glu  
 20 25 30  
 Ile Arg Asp Pro Trp Lys Lys Val Arg Leu Trp Leu Gly Thr Phe Asp  
 35 40 45  
 Thr Ala Glu Glu Ala Ala Arg Ala Tyr Asp Thr Ala Ala Ile Ser Leu  
 50 55 60  
 Arg Gly Pro Lys Ala Lys Thr Asn Phe Ala Tyr Ser Ser Pro Ser Ser  
 65 70 75 80  
 Ser Ser Ser Leu His Asn Asn Gln Ser Ser Ser Gln Asn Ser Ser Thr  
 85 90 95  
 Val Glu Ser Trp Pro Ser Ala Ala Pro Val Thr Arg Ser Gly Asp Leu  
 100 105 110  
 Glu Leu Pro Ala Ser Phe Leu Pro Arg Leu Gly Val Ser Thr Gly Arg  
 115 120 125  
 Arg Val Leu Asn Gly Gly Asn Pro Arg Ser Gly Arg Arg Arg Ser Leu  
 130 135 140  
 Ser Glu Lys Asn Ser Gly Arg Lys Ala Glu Gly Ala Glu Ala Arg Thr  
 145 150 155 160  
 Thr Leu Ser Asp Ser Asp Ser Ser Ser Ser Ala Val Leu Asp  
 165 170

<210> 1061  
 <211> 121  
 <212> PRT  
 <213> Pinus radiata

<400> 1061  
 Met Gly Pro Leu Met Gly Ser Pro Leu Gly Gly Gly Leu Gly Leu Ser  
 1 5 10 15  
 Pro Arg Met Gly Gly Gly Ile Gly Asn Gly Leu Gln Gly Gly Leu Gly  
 20 25 30  
 Val Gly Leu Ala Gly Leu Gly Ala Thr Ala Leu Thr Ile Gly Ala Ala

```

      35      40      45
Ser Pro Ala Asn Gln Leu Ser Ser Asp Gly Met Gly Asn Ser His Gly
  50      55      60
Asp Asn Ser Thr Val Ser Pro Ile Pro Tyr Gly Leu Asp Val Ser Val
  65      70      75      80
Arg Gly Arg Lys Arg Gly Gly Pro Val Glu Lys Val Val Glu Arg Arg
      85      90      95
Gln Arg Arg Met Ile Lys Asn Arg Glu Ser Ala Ala Arg Ser Arg Ala
      100      105      110
Arg Lys Gln Ala Tyr Thr Val Asn Trp
      115      120

```

<210> 1062  
 <211> 145  
 <212> PRT  
 <213> Pinus radiata

```

      <400> 1062
Glu Thr Arg Gly Gly Ser Ser Gly Asp Phe Leu Pro Pro Pro Pro Thr
  1      5      10      15
Thr Lys Cys Ser Glu Glu Leu Gln Asn Lys Ile Thr Lys Tyr Ile Ala
      20      25      30
Leu Lys Ser Ala Gly Arg Ser Phe Asn Lys Glu Leu Arg Asn Ser Lys
      35      40      45
Gly Tyr Arg Asn Pro Asp Phe Leu Gln Arg Ala Val Lys Tyr Gln Gly
      50      55      60
Ile Asp Gln Ile Gly Ser Cys Phe Lys Lys Glu Ile Phe Asp Pro His
  65      70      75      80
Gly Tyr Asp Pro Ser Asp Tyr Tyr Asp Ala Leu Ala Leu Glu Leu Lys
      85      90      95
Arg Glu Phe Glu Arg Arg Glu Gln Glu Lys Gln Lys Asn Gln Arg Val
      100      105      110
Asp Phe Val His Gly Ala Val Gln Thr Thr Ser Val Gln Ser Val Ser
      115      120      125
Lys Pro Ile Val Gln Val Met Gly Gly Gln Lys Val Pro Val Val Gly
      130      135      140
Val
145

```

<210> 1063  
 <211> 236  
 <212> PRT  
 <213> Pinus radiata

```

      <400> 1063
Met Ser Ser Pro Gln Ser Asn Lys Trp Leu Ser Tyr Phe Asp Glu Pro
  1      5      10      15
Leu Leu Asp Asp Val Gly Val Gly Gln Pro Ala Asn Pro Phe Phe Trp
      20      25      30
Cys Gly Gln Gly Ile Asn Asp Gln Pro Asp Val Ser Val Glu Ile Asp
      35      40      45
Gly Pro Asn Lys Asp Met Asp Glu Gln Asp Lys Leu Cys Pro Arg Lys
      50      55      60
Arg Ser Arg Glu Glu Ser Ser Gly Gly Pro Gly Ser Lys Ala Cys Arg
  65      70      75      80
Glu Lys Met Arg Arg Asp Arg Leu Asn Asp Arg Phe Met Glu Leu Ser
      85      90      95
Ser Val Leu Glu Pro Gly Arg Pro Pro Lys Thr Ala Asp Lys Ala Thr
      100      105      110
Ile Leu Ser Asp Ala Ala Arg Val Met Thr Gln Leu Arg Thr Glu Ala
      115      120      125

```

Gln Asn Leu Lys Ala Glu Asn Glu Arg Leu Gln Glu Ala Ile Lys Asp  
 130 135 140  
 Leu Lys Ala Glu Lys Asn Glu Leu Arg Asp Glu Lys Leu Arg Met Lys  
 145 150 155 160  
 Ala Glu Lys Glu Lys Leu Asp Gln Gln Val Lys Ala Met Ala Leu Pro  
 165 170 175  
 Thr Gly Phe Val Pro His Pro Ala Ala Phe His Ala Ala Ala Phe  
 180 185 190  
 Ala Ala Gln Ser Gln Ala Ala Ala Asn Lys Thr Met Pro Val Pro Gly  
 195 200 205  
 Tyr Pro Gly Met Ala Met Trp Gln Trp Met Pro Pro Ala Val Val Asp  
 210 215 220  
 Thr Ser Gln Asp His Val Leu Arg Pro Pro Val Ala  
 225 230 235

<210> 1064  
 <211> 145  
 <212> PRT  
 <213> Pinus radiata

<400> 1064  
 Met Gly Ser Arg Thr Met Leu Ser Ser Asn Gly Gly Arg Thr Pro Gln  
 1 5 10 15  
 Phe Gln Pro Leu Val Arg Gln Asn Ser Leu Tyr Asn Leu Thr Leu Glu  
 20 25 30  
 Glu Val Gln Asn Gln Leu Gly Asp Ala Ser Lys Pro Leu Ser Ser Met  
 35 40 45  
 Asn Met Asp Glu Leu Leu Lys Asn Ile Trp Thr Gln Glu Glu Ser Gln  
 50 55 60  
 Ala Ile Ser Met Ala Ile Gly Asn Gly Pro Met Asn Gly Val Pro Pro  
 65 70 75 80  
 Asn Ser Ala Pro Ala Ser Gly Gly Leu Gln Arg Gln Gly Ser Leu Thr  
 85 90 95  
 Ile Pro Arg Thr Leu Ser Arg Lys Thr Val Asp Glu Val Trp Arg Asp  
 100 105 110  
 Ile Gln Gln Ser Gln Gly Lys Ser Asn Glu Glu Lys Lys Pro Gln Gln  
 115 120 125  
 Arg Gln Ser Thr Phe Gly Glu Met Thr Leu Glu Asp Phe Leu Val Lys  
 130 135 140  
 Ala  
 145

<210> 1065  
 <211> 171  
 <212> PRT  
 <213> Pinus radiata

<400> 1065  
 Met Ala Ser Gly Asn Val Asp Pro Asp Gln Trp Glu Phe Ala Asn Glu  
 1 5 10 15  
 Asp Phe Leu Arg Gly Gln Arg Asn Leu Leu Lys Asn Ile His Arg Arg  
 20 25 30  
 Lys Pro Met His Ser His Ser Gln Asn Pro Gln Gln Gly Val Cys Asn  
 35 40 45  
 Asp Ala Ile Lys Tyr Glu Leu Glu Glu Glu Ile Gln Arg Leu Lys Arg  
 50 55 60  
 Asp Lys Gly Leu Leu Met Met Glu Leu Val Arg Ile Arg Gln Gln His  
 65 70 75 80  
 Gln Gly Thr Glu Met His Met Gln Thr Leu Glu Glu Arg Leu Gln Ala  
 85 90 95  
 Met Glu His Arg Gln Gln Gln Met Met Ala Phe Leu Ala Lys Ala Val

```

          100          105          110
Gln Lys Pro Gly Phe Val Ala Gln Leu Val Gln Gln Ser Glu Asn Asn
          115          120          125
Lys Leu Leu Glu Ala Ala Asn Lys Lys Arg Arg Leu Pro Lys Gln Glu
          130          135          140
Asn Cys Ser Glu Ala Gly Glu Thr Glu Leu Thr Asp Ser Gln Ile Val
145          150          155          160
Lys Tyr Gln Pro Ala Ser Gly Asp Glu Cys Ser
          165          170

```

```

<210> 1066
<211> 112
<212> PRT
<213> Pinus radiata

```

```

          <400> 1066
Val Ala Ala Ala Ser Ala Ser Ala Ser Gly Thr Ala Val Ala Ala Ser
 1          5          10          15
Leu Pro Val Asn Gly Ala Ala Gly Val Arg Ser Ser Val Asp Ser Glu
          20          25          30
His Ser Asp Ile Glu Ala Ser Phe Lys Glu Ala Glu Cys Ser Gln Ala
          35          40          45
Ile Val Glu Arg Arg Pro Arg Lys Arg Gly Arg Lys Pro Ala Asn Gly
          50          55          60
Arg Glu Glu Pro Leu Asn His Val Glu Ala Glu Arg Gln Arg Arg Glu
65          70          75          80
Lys Leu Asn Gln Arg Phe Tyr Ala Leu Arg Ala Val Val Pro Asn Val
          85          90          95
Ser Lys Met Asp Lys Ala Ser Leu Leu Gly Asp Ala Ile Ser Tyr Ile
          100          105          110

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<210> 1067
<211> 73
<212> PRT
<213> Pinus radiata

```

```

          <400> 1067
Leu Tyr Ala Glu Glu Ser Ser Thr Val Thr His Leu Gln Tyr Gln Gln
 1          5          10          15
Ser Ile Leu Glu Asn Asp Leu Arg Ser Lys Leu Lys Asp Asn Leu Gln
          20          25          30
Gln Pro Gln Asn Ser Gly Lys Lys Arg Arg Tyr Arg Gly Val Arg Gln
          35          40          45
Arg Pro Trp Gly Lys Trp Ala Ala Glu Ile Arg Asp Pro Lys Lys Ala
          50          55          60
Ala Arg Val Trp Leu Gly Thr Phe Asp
65          70

```

```

<210> 1068
<211> 203
<212> PRT
<213> Pinus radiata

```

```

          <400> 1068
Asn Met Ala Lys His Thr Val Cys Ala Ser Phe Leu Asn Glu Gly Asp
 1          5          10          15
Phe Ile Cys Pro Pro Tyr Glu Asp Gly Ile Gly Leu Glu Trp Leu Ser
          20          25          30
Asp Phe Val Glu Asp Ser Phe Ala Ala Thr Gly Ser Ser Asn Ser Gly
          35          40          45
Ser Leu Ala Asp Leu Ser Lys Asp Lys Ile Asp Asp Asn Arg Glu Lys

```

50						55						60					
Lys	Lys	Gln	Asn	Pro	Thr	Asp	Glu	Ala	Ile	Ile	Pro	Glu	Ile	Pro	Pro		
65						70					75				80		
Ile	Lys	Glu	Thr	Pro	Arg	Ser	Gln	Arg	Ala	Val	Pro	Gly	Arg	Ala	Arg		
				85					90					95			
Ser	Lys	Arg	Arg	Arg	Ser	Ser	Gly	Ala	Pro	Ile	Arg	Gly	Trp	Ser	Thr		
			100					105					110				
Ser	Glu	Asp	Tyr	Ala	Leu	Gln	Asn	Glu	Gly	Gly	Met	Lys	Thr	Val	Thr		
		115					120					125					
Gly	Ala	Asp	Ala	Ile	Asn	His	Tyr	Gln	Ser	Ser	Ala	Pro	Gln	Gln	Gln		
	130					135					140						
Pro	Arg	Arg	Cys	Thr	His	Cys	Leu	Ser	Gln	Arg	Thr	Pro	Gln	Trp	Arg		
145					150					155					160		
Leu	Gly	Pro	Leu	Gly	Pro	Lys	Thr	Leu	Cys	Asn	Ala	Cys	Gly	Val	Arg		
			165						170					175			
Phe	Lys	Ser	Gly	Arg	Leu	Phe	Pro	Glu	Tyr	Arg	Pro	Ala	Lys	Ser	Pro		
			180					185					190				
Thr	Phe	Ile	Arg	Tyr	Ile	His	Ser	Asn	Ser	His							
		195					200										

<210> 1069  
 <211> 190  
 <212> PRT  
 <213> Pinus radiata

Gly	Asn	Ala	Ala	Arg	Arg	Pro	His	Asp	Val	Leu	Leu	Lys	Leu	Glu	Lys		
1				5				10					15				
Leu	Ser	Ser	Gln	Thr	Thr	Leu	Glu	Ser	Leu	Gln	Arg	Leu	Ile	Val	Gln		
			20					25					30				
Lys	Lys	Cys	Leu	Leu	Phe	Gly	Lys	Val	Gly	Ile	Arg	Ile	Asp	Gly			
		35					40					45					
Lys	Lys	Thr	Ala	Asn	Thr	Glu	Lys	Val	Asn	Glu	Arg	Asn	Thr	Ile	Pro		
	50					55				60							
Arg	Ile	Ile	Phe	Gly	Ala	Leu	Thr	Phe	Thr	Arg	Asn	Arg	Pro	His	Ala		
65				70					75					80			
Leu	Ser	Lys	Asn	Gly	Ser	Ile	Ala	Asp	Thr	Arg	Arg	Asn	Ile	Cys	Gly		
			85					90					95				
Ala	Pro	Gln	Glu	Asp	Gly	Thr	Ile	Cys	Thr	Ala	Ile	Pro	Leu	Lys	Ser		
			100					105					110				
Arg	Lys	Arg	Cys	Pro	Asp	His	Lys	Gly	Gln	Lys	Gly	Gln	Lys	Glu	Lys		
		115					120					125					
Asn	Leu	Ser	Lys	Ile	Asn	Ile	Ser	Ala	Asn	Val	Glu	Ser	Arg	Asn	Gln		
	130					135					140						
Gly	Val	Gly	Glu	His	Glu	Asn	Glu	Tyr	Arg	Tyr	Cys	Gly	Val	Leu	Leu		
145					150					155				160			
Lys	Asp	Gly	Ser	Thr	Cys	Lys	Ile	Ile	Pro	Asp	Lys	Gly	Arg	Lys	Arg		
			165						170					175			
Cys	Asn	Ile	His	Lys	Gly	Met	Arg	Ile	Pro	Gly	Gln	Ala	Lys				
		180						185					190				

<210> 1070  
 <211> 81  
 <212> PRT  
 <213> Pinus radiata

Met	Ala	Thr	Ser	Asn	Pro	Phe	Asp	Leu	Leu	Gly	Asp	Asp	Asp	Asn	Gly		
1				5				10						15			
Asp	Val	Ser	Gln	Leu	Val	Phe	Val	Pro	Gln	Glu	Lys	Pro	Thr	Val	Lys		
			20					25					30				



Lys Ala Ser Gln Pro Ala Gln Thr Ala Thr Ala Lys Leu Pro Ser Lys  
           35                                  40                  45  
 Pro Leu Pro Pro Ala Gln Ala Val Arg Glu Ser Arg Asn Gly Val Gly  
           50                                  55                  60  
 Arg Gly Gly Arg Gly Gly Arg Gly Gly Asp Arg Asn Gln Asp Val Gly  
       65                                  70                  75                  80  
 Tyr

<210> 1071  
 <211> 154  
 <212> PRT  
 <213> Pinus radiata

<400> 1071  
 Met Asn Arg Glu Lys Leu Met Lys Met Ala Gly Ala Val Arg Thr Gly  
   1                                  5                  10                  15  
 Gly Lys Gly Thr Met Arg Arg Lys Lys Lys Thr Ile His Arg Thr Thr  
           20                                  25                  30  
 Thr Thr Asp Asp Lys Lys Leu Gln Ser Thr Leu Lys Arg Ile Gly Val  
           35                                  40                  45  
 Asn Ala Ile Pro Ala Ile Glu Glu Val Asn Ile Phe Leu Glu Asp Ser  
       50                                  55                  60  
 Val Ile His Phe Gln Asn Pro Lys Val Gln Ala Ser Ile Ala Ala Asn  
       65                                  70                  75                  80  
 Thr Trp Val Val Ser Gly Ser Pro Gln Thr Lys Arg Leu Gln Asp Leu  
           85                                  90                  95  
 Leu Pro Gly Ile Ile Asn Gln Leu Gly Pro Asp Ser Phe Ala Asn Leu  
           100                                 105                 110  
 Arg Lys Leu Ala Gln Gln Phe Gln Lys Glu Val Pro His Pro Ala Val  
           115                                 120                 125  
 Glu Glu Asp Asp Asp Asp Val Pro Glu Leu Val Glu Gly Glu Thr Phe  
           130                                 135                 140  
 Glu Glu Ala Ala Lys Gln Glu Ser Ala Ala  
       145                                 150

<210> 1072  
 <211> 63  
 <212> PRT  
 <213> Pinus radiata

<400> 1072  
 Met Pro His Gln His Gln Glu Arg Phe Pro Ser Gln Glu Gly  
   1                                  5                  10                  15  
 Ile Ser Trp Lys Arg Asp Asp Glu Leu Pro Gln Pro Gln Asn Pro Pro  
           20                                  25                  30  
 Lys Lys Lys Arg Tyr Arg Gly Val Arg Gln Arg Pro Trp Gly Lys Trp  
           35                                  40                  45  
 Ala Ala Glu Ile Arg Asp Pro Lys Lys Ala Ala Arg Val Trp Leu  
       50                                  55                  60

<210> 1073  
 <211> 331  
 <212> PRT  
 <213> Pinus radiata

<400> 1073  
 Met Gly Gln Ile Gly Gly Pro His Gly Tyr Pro Asn Ser Ser Pro Ser  
   1                                  5                  10                  15  
 Ala Gln Asp Ala Leu Tyr Glu Glu Leu Trp His Ala Cys Ala Gly Pro  
           20                                  25                  30

```

Leu Val Thr Leu Pro Arg Ile Gly Glu Arg Val Phe Tyr Phe Pro Gln
   35           40           45
Gly His Met Glu Gln Val Glu Ala Ser Thr Asn Gln Gly Ala Asp Gln
   50           55           60
His Met Pro Leu Phe Asn Leu Pro Tyr Lys Ile Leu Cys Arg Val Ile
   65           70           75           80
Asn Val Gln Leu Lys Ala Glu Pro Asp Thr Asp Glu Val Phe Ser Gln
           85           90           95
Ile Thr Leu Leu Pro Glu Ala Glu Gln Asp Glu Ser Ser Val Glu Lys
           100          105          110
Glu Pro Leu Thr Pro Leu Pro Pro Lys Pro Leu Val Tyr Ser Phe Cys
           115          120          125
Lys Thr Leu Thr Ala Ser Asp Thr Ser Thr His Gly Gly Phe Ser Val
           130          135          140
Leu Arg Arg His Ala Asp Glu Cys Leu Pro Pro Leu Asp Met Ser Gln
           145          150          155          160
Gln Pro Pro Ser Gln Asp Leu Val Ala Lys Asp Leu His Gly Val Glu
           165          170          175
Trp Arg Phe Arg His Ile Phe Arg Gly Gln Pro Arg Arg His Leu Leu
           180          185          190
Thr Thr Gly Trp Ser Val Phe Val Ser Ser Lys Arg Leu Val Ala Gly
           195          200          205
Asp Ala Phe Ile Phe Leu Arg Gly Glu Asn Gly Glu Leu Arg Val Gly
           210          215          220
Val Arg Arg Ala Met Arg Gln Gln Asn Asn Val Pro Ser Ser Val Ile
           225          230          235          240
Ser Ser His Ser Met His Leu Gly Val Ile Ala Thr Ala Ser His Ala
           245          250          255
Val Thr Thr Lys Thr Met Phe Ser Val Tyr Tyr Lys Pro Arg Thr Ser
           260          265          270
Pro Ser Glu Phe Ile Ile Pro Tyr Asp Gln Tyr Met Glu Ser Met Lys
           275          280          285
Ile Asn Phe Ser Val Gly Met Arg Phe Lys Met Lys Phe Glu Gly Glu
           290          295          300
Glu Val Pro Glu Gln Arg Phe Thr Gly Thr Ile Val Gly Ile Ser Asp
           305          310          315          320
Ala Asp Pro Val Asn Trp Pro Asn Ser Lys Trp
           325          330

```

&lt;210&gt; 1074

&lt;211&gt; 113

&lt;212&gt; PRT

&lt;213&gt; Pinus radiata

&lt;400&gt; 1074

```

Met Thr Gln Ala Thr Asn Tyr Thr Ala Gly Thr Ile Arg Asp Asp Gln
   1           5           10           15
Glu Glu Gln Cys Val Arg Arg Gly Pro Trp Thr Val Asp Glu Asp Met
           20           25           30
Ser Leu Ile Arg Cys Val Thr Thr Arg Gly Glu Gly Arg Trp Asn Thr
           35           40           45
Val Ala Lys Phe Ala Gly Leu Lys Arg Thr Gly Lys Ser Cys Arg Leu
           50           55           60
Arg Trp Leu Asn Tyr Leu Arg Pro Asp Val Lys Arg Gly Asn Ile Thr
           65           70           75           80
Pro Glu Glu Gln Leu Leu Ile Leu Glu Leu His Arg Leu Trp Gly Asn
           85           90           95
Arg Trp Ser Lys Ile Ala Arg Gln Leu Pro Gly Arg Thr Asp Asn Glu
           100          105          110
Ile

```

<210> 1075  
 <211> 44  
 <212> PRT  
 <213> Pinus radiata

<400> 1075  
 Met Ala Glu Asn Tyr Gly Ser Pro Asp Ser Ser Pro Arg Ser Glu Asn  
 1 5 10 15  
 Glu Ser Gly Gly Gly His Met Gly Gly Ser Asp Phe Ser Val Lys Glu  
 20 25 30  
 Gln Asp Arg Phe Leu Pro Ile Ala Asn Val Gly Arg  
 35 40

<210> 1076  
 <211> 282  
 <212> PRT  
 <213> Pinus radiata

<400> 1076  
 Met Pro Met Leu Ala Glu Thr Tyr Arg Asp Ser Phe Glu Thr Thr Ser  
 1 5 10 15  
 Gly Gly Ser Ser Val Asp Leu Val Gly Met Ala Leu Pro Gly Leu Ala  
 20 25 30  
 Pro Asn Leu Ser Ser Ala Ser Val Ser Ala Ser Ala Ser Glu Asp Ser  
 35 40 45  
 Ala Lys Lys Ile Arg Lys Pro Tyr Thr Ile Thr Lys Ser Arg Glu Ser  
 50 55 60  
 Trp Ser Glu Gln Glu His Asp Lys Phe Leu Glu Ala Leu Gln Leu Phe  
 65 70 75 80  
 Asp Arg Asp Trp Lys Lys Ile Glu Ala Phe Val Gly Ser Lys Thr Val  
 85 90 95  
 Ile Gln Ile Arg Ser His Ala Gln Lys Tyr Phe Leu Lys Val Gln Lys  
 100 105 110  
 Asn Gly Thr Arg Glu His Val Pro Pro Arg Pro Lys Arg Lys Ala  
 115 120 125  
 Ser His Pro Tyr Pro Gln Lys Ala Ser Lys Asn Val Pro Val Ser Gln  
 130 135 140  
 Gln Val Ser Thr Ala Phe Pro Thr Ala Ala Thr Gln Leu Asp Ser Gly  
 145 150 155 160  
 Tyr Tyr Pro Arg Ala Glu Ser Ser Ser Ile Leu Thr Lys Ser Gly Ser  
 165 170 175  
 Ser Cys Pro Thr Val Ser Ser Trp Val His His Thr Ile Pro Ser Ile  
 180 185 190  
 Asp Ala Ser Phe Val Glu Lys Asp Asp Gly Gly Pro Pro Gly Ile Glu  
 195 200 205  
 Thr Gly Asn Asn Cys Ser Ser Gly Ser Thr Glu Ser Ser Pro Pro Thr  
 210 215 220  
 Trp Pro Pro Cys Ser Glu Ile Pro Glu Lys Val Lys Pro Asp Phe Ser  
 225 230 235 240  
 Gln Val Tyr Lys Phe Ile Gly Ser Val Phe Asp Pro Ser Thr Thr Asp  
 245 250 255  
 His Leu Lys Lys Leu Lys Glu Trp Ile Gln Leu Ile Leu Lys Leu Cys  
 260 265 270  
 Cys Thr His Glu Glu Pro Phe His Asn Leu  
 275 280

<210> 1077  
 <211> 104  
 <212> PRT  
 <213> Pinus radiata

&lt;400&gt; 1077

```

Met Gly Arg Ser Phe Ser Cys Trp Ser Cys Ser Lys Asp Asn Gly His
 1           5           10           15
Glu Arg Leu Asn Arg Gly Ser Trp Ser Ala Glu Glu Asp Thr Ile Leu
           20           25           30
Ser Glu His Ile Lys Thr His Gly Val Gly Arg Trp Thr Ser Leu Pro
           35           40           45
Lys Lys Ala Gly Leu Lys Arg Ser Gly Lys Ser Cys Arg Leu Arg Trp
           50           55           60
Phe Asn Tyr Leu Arg Ser Asp Ile Lys His Gly Asn Ile Ser Pro Glu
65           70           75           80
Glu Glu Glu Leu Leu Ile Arg Leu His Arg Leu Leu Gly Asn Arg Trp
           85           90           95
Ser Leu Ile Ala Gly Arg Leu Pro
           100

```

&lt;210&gt; 1078

&lt;211&gt; 93

&lt;212&gt; PRT

&lt;213&gt; Pinus radiata

&lt;400&gt; 1078

```

Met Asp Arg Asp Lys Leu Met Lys Met Ala Gly Ala Val Arg Thr Gly
 1           5           10           15
Gly Lys Gly Thr Val Arg Arg Lys Lys Lys Ala Val His Arg Ala Thr
           20           25           30
Thr Thr Asp Asp Lys Arg Leu Gln Ser Thr Leu Lys Arg Leu Gly Val
           35           40           45
Asn Thr Ile Pro Ala Ile Glu Glu Val Asn Ile Phe Lys Asp Glu Met
50           55           60
Val Ile His Phe Ile Asn Pro Lys Val Gln Ala Ser Ile Asn Ala Asn
65           70           75           80
Thr Trp Val Val Ser Gly Ser Pro Gln Thr Lys Asn Leu
           85           90

```

&lt;210&gt; 1079

&lt;211&gt; 118

&lt;212&gt; PRT

&lt;213&gt; Pinus radiata

&lt;400&gt; 1079

```

Met Asp Arg Asp Lys Leu Met Lys Met Ala Gly Ala Val Arg Thr Gly
 1           5           10           15
Gly Lys Gly Thr Val Arg Arg Lys Lys Lys Ala Val His Arg Ala Thr
           20           25           30
Thr Thr Asp Asp Lys Arg Leu Gln Ser Thr Leu Lys Arg Leu Gly Val
           35           40           45
Asn Thr Ile Pro Ala Ile Glu Glu Val Asn Ile Phe Lys Asp Glu Met
50           55           60
Val Ile His Phe Ile Asn Pro Lys Val Gln Ala Ser Ile Asn Ala Asn
65           70           75           80
Thr Trp Val Val Ser Gly Ser Pro Gln Thr Lys Asn Leu Gln Asp Leu
           85           90           95
Leu Pro Gly Ile Ile Asn Gln Leu Gly Pro Asp Asn Leu Ile Asn Leu
           100           105           110
Lys Lys Ile Ala Gln Gln
           115

```

&lt;210&gt; 1080

&lt;211&gt; 191

<212> PRT  
 <213> Pinus radiata

<400> 1080  
 Asp Asp Glu Glu Ala Ser Leu Lys Gly Lys Val Arg Trp Gly Leu  
 1 5 10 15  
 Asp Ser Ile Ala Ala Leu Gly Leu Lys Phe Ile Lys Arg Ala Leu Ala  
 20 25 30  
 Lys Lys Lys Thr Val Gly Ile Ala Gly Gly Ala Asp Arg Val Leu Leu  
 35 40 45  
 Ser Gly Arg Met Lys Leu Lys Pro Lys Gly Leu Met Cys Val Phe Cys  
 50 55 60  
 Gly Leu Leu Arg Val Arg Gly Asn Gly Ile Ile Gly Val Lys Val Phe  
 65 70 75 80  
 Leu Glu Lys Tyr Ala Gly Ser Ser Gln Gln Glu Ile Leu Arg Val Glu  
 85 90 95  
 Ile Ser Leu Ser Phe Ala Phe Gln Asn Glu Asp Arg Leu Leu Pro Ala  
 100 105 110  
 Ala Ser Gly Arg Gly Lys Glu Glu Ser Gln Phe Arg Ala Met Ala Cys  
 115 120 125  
 Met Cys Trp Ala Thr Cys Val Pro Thr Cys Cys Trp Glu Pro Cys Cys  
 130 135 140  
 Ile Phe Ser Ser Arg Ser Gln Ala Gly Gly Cys Leu Asn Lys Gln Glu  
 145 150 155 160  
 Val Asp Ala His Ile Pro Asn Tyr Pro Asn Leu Pro Pro Gln Leu Ile  
 165 170 175  
 Cys His Tyr Thr Met Leu Leu Cys Arg Gln Met Trp Arg Gln Met  
 180 185 190

<210> 1081  
 <211> 86  
 <212> PRT  
 <213> Pinus radiata

<400> 1081  
 Ile Asp Ser Ser Glu Lys Arg Leu Lys Gly Lys Asn Tyr Ile Asp Ile  
 1 5 10 15  
 Thr Thr Glu Arg Ala Ala Gln Glu Pro Gly Cys Ile Met Ala Arg Pro  
 20 25 30  
 Gln Arg Tyr Arg Gly Val Arg Gln Arg His Trp Gly Ser Trp Val Ser  
 35 40 45  
 Glu Ile Arg His Pro Leu Leu Lys Thr Arg Ile Trp Leu Gly Thr Phe  
 50 55 60  
 Glu Thr Ala Glu Asp Ala Ala Arg Ala Tyr Asp Glu Ala Ala Arg Met  
 65 70 75 80  
 Met Cys Gly Pro Arg Ala  
 85

<210> 1082  
 <211> 119  
 <212> PRT  
 <213> Pinus radiata

<400> 1082  
 Met Val Arg Ser Pro Cys Cys Asp Lys Val His Thr Asn Asn Lys Gly  
 1 5 10 15  
 Ala Trp Thr Lys Glu Glu Asp Glu Arg Leu Ile Ala His Ile Glu Ala  
 20 25 30  
 His Gly Glu Gly Ser Trp Arg Ser Leu Pro Lys Ala Ala Gly Leu Leu  
 35 40 45  
 Arg Cys Gly Lys Ser Cys Arg Leu Arg Trp Ile Asn Tyr Leu Arg Pro

```

      50              55              60
Asp Leu Lys Arg Gly Ser Phe Ser Glu Glu Glu Asp Asp Leu Ile Ile
65              70              75              80
Lys Leu His Ser Leu Leu Gly Asn Lys Trp Ser Leu Ile Ala Gly Arg
      85              90
Leu Gln Gly Glu Arg Thr Thr Lys Ile Lys Asn Tyr Trp Asn Thr His
      100              105              110
Met Lys Arg Lys Leu Leu Ser
      115

```

<210> 1083  
 <211> 128  
 <212> PRT  
 <213> Pinus radiata

```

      <400> 1083
Met Gly Arg Ser Pro Cys Pro Pro Lys Glu Ala Leu Asn Arg Gly Ala
1              5              10              15
Trp Thr Gly Met Glu Asp Thr Ile Leu Thr Glu Tyr Ile Arg Val His
      20              25              30
Gly Ser Gly Gly Trp Lys Asp Ile Ser Lys Arg Ala Gly Leu Lys Arg
      35              40              45
Cys Ala Lys Ser Cys Arg Leu Arg Trp Leu Asn Tyr Leu Arg Pro Asp
      50              55              60
Ile Lys Arg Gly Asn Ile Ser Pro Glu Glu Glu Glu Leu Ile Ile Arg
65              70              75              80
Leu His Arg Leu Leu Gly Asn Arg Trp Ser Leu Ile Ala Gly Arg Leu
      85              90              95
Pro Gly Arg Thr Asp Asn Glu Ile Lys Asn Tyr Trp Asn Thr His Met
      100              105              110
Ser Lys Lys Pro Trp Leu Ser Met Asp Glu Ser Gln Ser Asn Thr Ser
      115              120              125

```

<210> 1084  
 <211> 126  
 <212> PRT  
 <213> Pinus radiata

```

      <400> 1084
Glu Glu Glu Asp Glu Glu Glu Ala Gly Lys Glu Leu Glu Ala Trp Glu
1              5              10              15
Arg Ala Tyr Ala Asp Glu Arg Ser Trp Glu Thr Leu Gln Glu Asp Glu
      20              25              30
Glu Gly Leu Leu Asn Phe Asp Lys Lys Gln Gln Gln Gln Gln Arg
      35              40              45
Gln Tyr Arg Arg Arg Leu Gln Ser Ala Ala Ala Ala Ser Asn Ile
      50              55              60
Gln Arg Gly Leu Ile Arg Tyr Leu Tyr Ile Ile Asp Phe Ser Arg
65              70              75              80
Ala Ala Ala Glu Lys Asp Phe Lys Pro Asn Arg Met Val Val Val Ala
      85              90              95
Asn Cys Val Glu Ala Phe Val Arg Glu Phe Phe Asp Gln Asn Pro Leu
      100              105              110
Ser Gln Leu Gly Ile Val Ile Ile Lys Asn Gly Val Ala His
      115              120              125

```

<210> 1085  
 <211> 139  
 <212> PRT  
 <213> Pinus radiata

<400> 1085  
 Arg Ala Pro Cys Cys Glu Lys Thr His Thr Asn Lys Gly Ala Trp Ser  
 1 5 10 15  
 Lys Asp Glu Asp Glu Ala Leu Val Ala Tyr Ile Gln Ala His Gly Glu  
 20 25 30  
 Gly Ser Trp Arg Ser Leu Pro Lys Ala Ala Gly Leu Gln Arg Cys Gly  
 35 40 45  
 Lys Ser Cys Arg Leu Arg Trp Ile Asn Tyr Leu Arg Pro Asp Leu Lys  
 50 55 60  
 Arg Gly Asn Phe Ser Pro Glu Glu Asp Glu Ile Ile Ile Lys Leu His  
 65 70 75 80  
 Ser Met Leu Gly Asn Lys Trp Ser Leu Ile Ala Ser Lys Leu Pro Gly  
 85 90 95  
 Arg Thr Asp Asn Glu Ile Lys Asn Tyr Trp Asn Thr His Ile Lys Arg  
 100 105 110  
 Lys Met Leu Glu Arg Gly Leu Asp Pro Ser Thr His Leu Pro Leu Met  
 115 120 125  
 Ser Asp His Gly Ser Phe Glu Ser Ser Ser Lys  
 130 135

<210> 1086  
 <211> 189  
 <212> PRT  
 <213> Pinus radiata

<400> 1086  
 Lys Val Val Pro Pro Leu Asp Phe Thr Gln Gln Pro Pro Ala Gln Glu  
 1 5 10 15  
 Leu Thr Ala Arg Asp Leu His Asp Asn Glu Trp Lys Phe Arg His Ile  
 20 25 30  
 Phe Arg Gly Gln Pro Lys Arg His Leu Leu Thr Thr Gly Trp Ser Val  
 35 40 45  
 Phe Val Ser Ala Lys Arg Leu Ala Ala Gly Asp Ser Val Leu Phe Ile  
 50 55 60  
 Trp Asn Glu Lys Gly Gln Leu Leu Leu Gly Ile Arg Arg Ala Asn Arg  
 65 70 75 80  
 Pro Gln Ala Val Met Pro Ser Leu Val Leu Ser Ser Asp Ser Met His  
 85 90 95  
 Ile Gly Leu Leu Ala Ala Ala Ala His Ala Ala Ala Thr Asn Ser Arg  
 100 105 110  
 Phe Thr Ile Phe Tyr Asn Pro Arg Ala Ser Pro Ser Glu Phe Val Ile  
 115 120 125  
 Pro Leu Ala Lys Tyr Val Lys Ala Val Tyr His Thr Arg Val Ser Ile  
 130 135 140  
 Gly Met Arg Phe Arg Met Leu Phe Glu Thr Glu Glu Ser Ser Val Arg  
 145 150 155 160  
 Arg Tyr Met Gly Thr Ile Thr Gly Ile Ser Asp Leu Asp Gln Val Arg  
 165 170 175  
 Trp Pro Asn Ser His Trp Arg Ser Val Lys Val Gly Trp  
 180 185

<210> 1087  
 <211> 132  
 <212> PRT  
 <213> Pinus radiata

<400> 1087  
 Trp Glu Phe Ala Asn Asp Cys Phe Arg Lys Gly Glu Lys Gln Leu Leu  
 1 5 10 15  
 Cys Glu Ile His Arg Arg Lys Ser Val Gln Gln Ser Ser Ala Ala Pro  
 20 25 30

Ala Ser Arg Cys Val Ser Pro Val Asn Ser Val Glu Glu Gln Ala Leu  
 35 40 45  
 Ser Ser Thr Ser Ser Pro Val Ser Ser His Ala Glu Ala Ala Leu Val  
 50 55 60  
 Asn Cys Gly Gln Asn Ser Thr Ser Gly Leu His Gly Glu Asn Glu Lys  
 65 70 75 80  
 Leu Arg Lys Asp Asn Leu Leu Leu Met Ser Glu Leu Ala Gln Met Lys  
 85 90 95  
 Lys Gln Cys Asn Asp Leu Leu Leu Phe Leu Ser Lys Cys Val Asn Ile  
 100 105 110  
 Thr Pro Asp Asn Leu Ser Asn Ile Leu Ile Ala Ala Ser Glu Thr Asn  
 115 120 125  
 Cys Arg Asp Glu  
 130

&lt;210&gt; 1088

&lt;211&gt; 214

&lt;212&gt; PRT

&lt;213&gt; Pinus radiata

&lt;400&gt; 1088

Gly Lys Trp Gly Val Pro Asp Asn Leu Tyr Gly Ala Gln Glu Asp Ser  
 1 5 10 15  
 Gly Gly Ser Ser Val Lys Gln Lys Asn Leu Lys Asp Gly Asp Gln Phe  
 20 25 30  
 Thr Ser Ser Asp Glu Ala Asp Ser Glu Val Asn Glu Phe Asn Ile Met  
 35 40 45  
 Lys Arg Ser Asn Ser Gly Val Gly Tyr Glu Asp Asn Lys Arg Ser Gly  
 50 55 60  
 Gly Gln Gly Asp Gly Asn Gln Tyr Arg Ser Arg His Ser Arg Ser Ile  
 65 70 75 80  
 Ser Met Asp Ser Ile Met Ser Lys Met His Asn Phe Ser Glu Asp Leu  
 85 90 95  
 Glu Gln Glu Pro Ser Gln Gly Arg Asn Val Arg His Ser His Ser Asn  
 100 105 110  
 Ser Met Asp Gly Ser Thr Asn Phe Asn Val Glu Phe Gly Asn Gly Glu  
 115 120 125  
 Phe Ser Ala Ser Glu Met Lys Lys Ile Met Ala Ser Glu Lys Leu Ala  
 130 135 140  
 Glu Leu Ala Thr Val Asp Pro Lys Arg Val Lys Arg Ile Leu Ala Asn  
 145 150 155 160  
 Arg Gln Ser Ala Ala Arg Ser Lys Glu Arg Lys Met Arg Tyr Ile Ser  
 165 170 175  
 Glu Leu Glu Arg Lys Val Gln Thr Leu Gln Thr Glu Ala Thr Thr Leu  
 180 185 190  
 Ser Ala Gln Leu Thr Leu Leu Gln Arg Asp Gln Leu Asp Trp Ala Val  
 195 200 205  
 Arg Thr Thr Ser Ser Ser  
 210

&lt;210&gt; 1089

&lt;211&gt; 97

&lt;212&gt; PRT

&lt;213&gt; Pinus radiata

&lt;400&gt; 1089

Met Ala Asp Gly His Gln Phe Asn Asn Ile Leu Leu Val Gly Arg Gly  
 1 5 10 15  
 Gly Thr Asn Pro Gly Gln Leu Arg Ile His Ser Gly Gly Ile Val Trp  
 20 25 30  
 Arg Arg Gln Gly Gly Gly Lys Val Val Asp Val Ala Lys Asn Glu Val



```

          35          40          45
Lys Ser Leu Ser Trp Thr Arg Val Pro Arg Gly Tyr Gln Leu Gly Val
   50          55          60
Lys Leu Lys Ala Gly Leu Asn Ile Lys Leu Ala Gly Phe Arg Glu Gln
   65          70          75          80
Asp Val Gly Asn Leu Thr Asn Phe Met Thr Asn Thr Ile Gly Leu Ala
          85          90          95
Pro

```

```

<210> 1090
<211> 108
<212> PRT
<213> Pinus radiata

```

```

<400> 1090
Met Gly Asp His Ser Gly Gly Glu Ser Ser Pro His Ser Asp Ile Glu
 1          5          10          15
Ser Thr Gly Ile His Asn Asn Gly Ser Ser Ser Ser Gln Ser Ile
          20          25          30
Ile Arg Glu Gln Asp Arg Leu Leu Pro Ile Ala Asn Val Gly Arg Ile
          35          40          45
Met Lys Lys Thr Leu Pro Thr Asn Ala Lys Ile Ser Lys Glu Ala Lys
   50          55          60
Glu Ile Met Gln Glu Cys Val Ser Glu Phe Ile Ser Phe Val Thr Gly
   65          70          75          80
Glu Ala Ser Asp Lys Cys His Lys Glu Lys Arg Lys Thr Ile Asn Gly
          85          90          95
Asp Asp Ile Leu Trp Ala Met Thr Thr Leu Gly Phe
          100          105

```

```

<210> 1091
<211> 90
<212> PRT
<213> Pinus radiata

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```

<400> 1091
Arg Asn Ile Gln Arg Asn Glu Tyr His Asn Leu Phe Asn Phe Ile Ser
 1          5          10          15
Ser Lys Gly Leu Lys Ile Met Asn Leu Gly Asp Ala His Gly Thr Ser
          20          25          30
Gly Val Ala Ala Val Leu Glu Asn Ser Asp Asp Glu Ala Val Asp Pro
          35          40          45
His Leu Glu Arg Ile Lys Ser Ala Arg Glu Gly Gly Ala Gly Glu Asp
   50          55          60
Ser Asp Glu Glu Ala Cys Tyr Thr Gly Asp Leu Ser Leu Ile Cys Ala
   65          70          75          80
Val Val Lys Glu Leu Ile Cys Thr His Asp
          85          90

```

```

<210> 1092
<211> 133
<212> PRT
<213> Pinus radiata

```

```

<400> 1092
Met Gly Cys Val Ser Ser Lys Val Glu Asn Glu Glu Leu Val Lys Arg
 1          5          10          15
Cys Arg Asp Arg Arg Arg Leu Met Lys Gln Ala Val Asn Ser Arg His
          20          25          30
Asn Phe Ala Ala Ala His Ile Ala Tyr Leu Arg Ala Leu Gln Asn Thr

```

```

      35      40      45
Gly Asn Ala Leu Val Gln Phe Ala Glu Gly Glu Ser Ser Ala Met Asn
  50      55      60
Gly Asn Ala Ile Glu Glu Ala Ala Thr Pro Met Pro Ala Thr Pro Leu
65      70      75      80
Thr Ala Ser His Arg His Pro Met Lys Phe His Pro Pro Pro Pro Pro
      85      90      95
Pro Pro Pro Pro Leu Val Pro Ser Ser Pro Ser Val Ser Pro Ser Met
      100      105      110
Glu Ser Phe Arg Met Pro Ser Lys His Asn Pro Leu Ser Arg Ser Thr
      115      120      125
Ser Asp Ile Ser Tyr
130

```

<210> 1093  
 <211> 148  
 <212> PRT  
 <213> Pinus radiata

```

      35      40      45
Met Gly Arg Ala Pro Cys Cys Thr Lys Val Gly Leu Asn Lys Gly Ala
  1      5      10      15
Trp Ser Ala Glu Glu Asp Ser Leu Leu Gly Arg Tyr Ile Gln Thr His
      20      25      30
Gly Glu Gly Asn Trp Arg Ser Leu Pro Lys Lys Ala Gly Leu Arg Arg
      35      40      45
Cys Gly Lys Ser Cys Arg Leu Arg Trp Leu Asn Tyr Leu Arg Pro Cys
      50      55      60
Ile Lys Arg Gly Asn Ile Thr Thr Asp Glu Glu Glu Leu Ile Ile Arg
65      70      75      80
Met His Ala Leu Leu Gly Asn Arg Trp Ser Ile Ile Ala Gly Arg Val
      85      90      95
Pro Gly Arg Thr Asp Asn Glu Ile Lys Asn Tyr Trp Asn Thr Asn Leu
      100      105      110
Ser Lys Lys Leu Ala Val Arg Gly Ile Asp Pro Lys Thr His Lys Lys
      115      120      125
Ile Thr Thr Asp Gly Thr Asn Arg Val Asn Gly Asp Arg Phe Ser Gln
      130      135      140
Arg Lys Gly Glu
145

```

<210> 1094  
 <211> 107  
 <212> PRT  
 <213> Pinus radiata

```

      35      40      45
Arg Gln Leu Ile Arg Glu Leu Glu Gln Met Phe Asn Ile Glu Gly Glu
  1      5      10      15
Leu Glu Asp Pro Ser Lys Gly Trp Gln Val Val Tyr Thr Asp Asn Glu
      20      25      30
Gly Asp Met Met Leu Val Gly Asp Asp Pro Trp Gln Glu Phe Cys Ser
      35      40      45
Ile Val Arg Lys Ile Tyr Ile Tyr Thr Arg Glu Glu Val Glu Lys Met
      50      55      60
Thr Pro Gln Thr Pro Ser Ala Asn Ser Arg Asp Val Gln Lys Ser Leu
65      70      75      80
Ser Gln Glu Glu Thr Ser Arg Ser Ser Asp Arg Gln Asp Ser Ser Ile
      85      90      95
Ala Gly Val Thr Ala Glu Arg Ser Ser Asp Ala
      100      105

```

<210> 1095  
 <211> 275  
 <212> PRT  
 <213> Pinus radiata

<400> 1095  
 Met Ser Asn Gly Arg Leu Cys Glu Asp Leu Asp Arg Ile Lys Gly Pro  
 1 5 10 15  
 Trp Ser Pro Glu Glu Asp Ala Ser Leu Gln Arg Leu Val Gln Lys Tyr  
 20 25 30  
 Gly Pro Arg Asn Trp Thr Leu Ile Ser Lys Gly Ile Pro Gly Arg Ser  
 35 40 45  
 Gly Lys Ser Cys Arg Leu Arg Trp Cys Asn Gln Leu Ser Pro Gln Val  
 50 55 60  
 Glu His Arg Pro Phe Thr Pro Ser Glu Asp Ala Ala Ile Leu Gln Ala  
 65 70 75 80  
 His Ala Gln His Gly Asn Lys Trp Ala Thr Ile Ala Arg Ala Leu Pro  
 85 90 95  
 Gly Arg Thr Asp Asn Ala Ile Lys Asn His Trp Asn Ser Thr Leu Arg  
 100 105 110  
 Arg Arg Cys Arg Asp Pro Lys Lys Gly Ile Val Val His Leu Asp Asp  
 115 120 125  
 Glu Ile Ser Ser Leu Asp Ala Ala Arg Lys Arg Ser Ser Asp Gly Phe  
 130 135 140  
 Ser His Asp Gly Ser Ser Ala Leu Glu Asp Asn Gly Cys Ser Ser Trp  
 145 150 155 160  
 Glu Val Asp Ser Lys Arg Leu Lys Arg Leu Gly Glu Leu Gly Thr Glu  
 165 170 175  
 Gln Gly Pro Glu Val Glu Ala Glu Val Glu Val Ser Asp Arg Ser Asp  
 180 185 190  
 Ala Asn Pro Gly Arg Val Leu Tyr Arg Pro Val Pro Val Ser Phe  
 195 200 205  
 Phe Ser Ser Phe Gly Lys Thr Val Ala Asn Leu Gln Glu Thr Ala Ala  
 210 215 220  
 Gly Ala Val Gly Val Asp Pro Pro Thr Ser Leu Ser Leu Ser Leu Pro  
 225 230 235 240  
 Gly Leu Asp Pro Ala Ile Pro Ser Pro Lys Leu Ser Thr Gln Lys Asp  
 245 250 255  
 Ser His Asn Asn Ser Thr Val Asn Asn Asn Ile Pro Ile Pro Pro Val  
 260 265 270  
 Val Asn Thr  
 275

<210> 1096  
 <211> 128  
 <212> PRT  
 <213> Pinus radiata

<400> 1096  
 Glu Phe Gly Arg Ser Ser Glu Lys Gly Arg Gly Tyr Gly Arg Gly Arg  
 1 5 10 15  
 Gly Arg Gly Gly Arg Gly Gly Tyr Gly Asn Asp Ala Gly Asp Glu Ser  
 20 25 30  
 Gln Arg Pro Arg Arg Gln Tyr Glu Arg Arg Ser Gly Thr Gly Arg Gly  
 35 40 45  
 Tyr Glu Val Lys Arg Glu Gly Ala Gly Gln Gly Asn Trp Gly Thr Pro  
 50 55 60  
 Thr Asp Gln Gly Phe Thr Glu Glu Pro Glu Glu Leu Ser Arg Ala Glu  
 65 70 75 80  
 Glu Glu Lys Thr Val Thr Pro Glu Lys Gln Glu Glu Gln Lys Pro Ser

				85					90					95			
Glu	Glu	Ser	Asn	Gln	Glu	Ile	Pro	Ala	Pro	Glu	Ser	Glu	Glu	Lys	Lys		
			100					105					110				
Glu	Glu	Glu	Glu	Asp	Lys	Asp	Met	Thr	Leu	Asp	Glu	Tyr	Glu	Lys	Val		
			115				120					125					

<210> 1097  
 <211> 135  
 <212> PRT  
 <213> Pinus radiata

<400> 1097

Ala	Val	Asn	Ser	Ser	Leu	Ser	Val	Gly	Met	Arg	Phe	Lys	Met	Arg	Phe		
1				5					10					15			
Glu	Gly	Glu	Glu	Ser	Pro	Glu	Arg	Arg	Phe	Thr	Gly	Thr	Ile	Ile	Gly		
			20					25					30				
Met	Gly	Glu	Val	Asp	Asn	Val	Arg	Trp	Pro	Glu	Ser	Lys	Trp	Arg	Ser		
		35					40					45					
Leu	Lys	Val	Gln	Trp	Asp	Glu	Thr	Ser	Val	Val	Pro	Arg	Pro	Glu	Arg		
	50				55						60						
Val	Ser	Pro	Trp	Glu	Ile	Glu	Thr	Phe	Val	Ala	Ser	Ser	Ala	Ala	Leu		
65					70					75					80		
Asn	Pro	Leu	Pro	Ala	Pro	Arg	Thr	Lys	Lys	Pro	Arg	Pro	Asn	Leu	Val		
				85					90					95			
Ser	Ser	Ser	Gln	Glu	Leu	Met	Ile	His	Gly	Ser	Gly	Lys	Thr	Ala	Thr		
			100					105					110				
Asp	Ser	Ser	Gln	Val	His	Arg	Leu	Pro	Arg	Val	Leu	Gln	Gly	Gln	Glu		
		115					120					125					
Met	Arg	Thr	Phe	Gly	Gly	Ser											
		130				135											

<210> 1098  
 <211> 46  
 <212> PRT  
 <213> Pinus radiata

<400> 1098

Ala	Lys	Ser	Cys	Arg	Leu	Arg	Trp	Leu	Asn	Tyr	Leu	Arg	Pro	Asp	Ile		
1				5					10					15			
Lys	Arg	Gly	Asn	Ile	Ser	Pro	Glu	Glu	Glu	Glu	Leu	Ile	Ile	Arg	Leu		
			20					25					30				
His	Arg	Leu	Leu	Gly	Asn	Arg	Tyr	Val	Glu	Asn	Arg	Gly	Thr				
		35					40					45					

<210> 1099  
 <211> 113  
 <212> PRT  
 <213> Pinus radiata

<400> 1099

Met	Gly	Arg	Ser	Pro	Cys	Cys	Ser	Lys	Glu	Gly	Leu	Asn	Arg	Gly	Ala		
1				5					10					15			
Trp	Thr	Lys	Arg	Glu	Asp	Met	Ile	Leu	Ser	Glu	Tyr	Val	Arg	Ile	His		
			20					25					30				
Gly	Asp	Gly	Gly	Trp	Arg	Asn	Leu	Pro	Glu	Lys	Ala	Gly	Leu	Lys	Arg		
		35					40					45					
Cys	Gly	Lys	Ser	Cys	Arg	Leu	Arg	Trp	Leu	Asn	Tyr	Leu	Arg	Pro	Asp		
	50					55					60						
Ile	Lys	Arg	Gly	Asn	Ile	Cys	Pro	Ala	Glu	Glu	Glu	Leu	Ile	Ile	Arg		
65					70					75					80		
Leu	His	Arg	Leu	Leu	Gly	Asn	Arg	Trp	Ser	Leu	Ile	Ala	Gly	Arg	Leu		

85 90 95  
 Pro Gly Arg Thr Asp Asn Glu Ile Lys Asn Tyr Trp Asn Thr His Leu  
 100 105 110  
 Ser

<210> 1100  
 <211> 148  
 <212> PRT  
 <213> Pinus radiata

<400> 1100  
 Pro Tyr Leu His Glu Ser Arg His Leu His Ala Met Lys Arg Ala Arg  
 1 5 10 15  
 Gly Cys Gly Gly Arg Phe Leu Asn Thr Lys Lys Leu Glu Asp Ser Lys  
 20 25 30  
 Ala Asn Val Asp Asn Gly Lys Thr Pro Glu Gly His Thr Ala Gln Ala  
 35 40 45  
 Gly Ser Ser Ser Gly Ser Glu Val Leu Gln Ser Glu Asn Gly Asn Gly  
 50 55 60  
 Asn Ser Thr Gln Glu Leu His Gly Ala Cys Gly Met Ser Gly Ser Gln  
 65 70 75 80  
 Val Thr Ser Ile Ala Gln Ser Ser Glu Asn Gly Thr Thr Tyr Gln Tyr  
 85 90 95  
 Ser His Thr Asn Gly Ala Tyr Leu Asn His Tyr Gln His Pro His Phe  
 100 105 110  
 His Ile Ser Ala Phe His Pro Leu Ser Ser Gly Gly Glu Glu Gly Ser  
 115 120 125  
 Ser Ala Lys Gly Gly Ser Ile Ile Ser Gly Gly Ser Gln Gln Arg Val  
 130 135 140  
 Val Val Ile Gln  
 145

<210> 1101  
 <211> 48  
 <212> PRT  
 <213> Pinus radiata

<400> 1101  
 Met Gly Arg Ser Pro Cys Pro Pro Lys Glu Ala Leu Asn Arg Gly Ala  
 1 5 10 15  
 Trp Thr Gly Met Glu Asp Thr Ile Leu Thr Glu Tyr Ile Arg Val His  
 20 25 30  
 Gly Ser Gly Gly Trp Lys Ala Ile Ser Lys Arg Ala Gly Glu Cys Gln  
 35 40 45

<210> 1102  
 <211> 191  
 <212> PRT  
 <213> Pinus radiata

<400> 1102  
 Val Thr Arg Pro Gly Lys Phe Arg Ser Cys Gln Asp Gly Tyr Ala Val  
 1 5 10 15  
 Arg Ala Ser Leu Lys Ala Glu Asp Gly Val Leu Tyr Pro Leu Glu Lys  
 20 25 30  
 Ser Phe Phe Phe Leu Pro Lys Pro Thr Leu Ile Leu His Glu Glu  
 35 40 45  
 Ile Glu Tyr Leu Glu Phe Glu Arg His Gly Ala Ala Gly Thr Ser Ser  
 50 55 60  
 Met Ser Ser His Tyr Phe Asp Leu Ile Ile Lys Leu Lys Ser Glu Gln

65					70					75				80	
Glu	His	Gln	Phe	Arg	Asn	Ile	Gln	Arg	Asn	Glu	Tyr	His	Asn	Leu	Phe
				85					90					95	
Ser	Phe	Ile	Asn	Thr	Lys	Gly	Leu	Lys	Ile	Ile	Asn	Leu	Gly	Ala	Thr
			100					105						110	
Glu	Thr	Ile	Gly	Gly	Val	Ala	Ala	Ala	Leu	Gln	Asn	Ser	Asp	Asp	Glu
		115					120						125		
Ala	Val	Asp	Pro	His	Leu	Glu	Arg	Ile	Lys	Ile	Tyr	Val	Met	Val	Glu
		130				135						140			
Leu	Val	Leu	Lys	Thr	Ala	Thr	Lys	Arg	Met	Lys	Thr	Leu	Leu	Gln	Lys
145					150					155					160
Thr	Met	Met	Leu	Asp	Leu	Gln	Gln	Met	Ser	Gln	Lys	Lys	Arg	Asp	Gln
				165					170					175	
Met	Gln	Val	Arg	Val	Gln	Arg	Ser	Ser	Asn	Leu	Gln	Arg	Lys	Lys	
			180					185						190	

&lt;210&gt; 1103

&lt;211&gt; 106

&lt;212&gt; PRT

&lt;213&gt; Pinus radiata

&lt;400&gt; 1103

Met	Ser	Pro	Pro	Pro	Ser	Tyr	Ser	Met	Phe	Pro	Asn	Ser	Gly	Met	Gly
1				5					10					15	
Leu	Asn	Pro	Ser	Val	Thr	Ser	Ser	Glu	Pro	Ser	Ser	Gln	Val	Ser	Gly
			20					25					30		
Ser	Ile	Pro	His	Gln	Tyr	Ser	Gly	Ser	Glu	Glu	Asp	Pro	Lys	Leu	Thr
		35					40					45			
Ile	Asp	Glu	Arg	Lys	Gln	Lys	Arg	Met	Leu	Ser	Asn	Arg	Glu	Ser	Ala
	50					55					60				
Arg	Arg	Ser	Arg	Met	Arg	Lys	Gln	Gln	His	Leu	Asp	Glu	Leu	Arg	Ala
65					70					75					80
Arg	Thr	Ala	His	Leu	Arg	Ala	Glu	Asn	Ser	His	Met	Leu	Thr	Lys	Phe
			85						90					95	
Asn	Ile	Ala	Ser	Gln	Lys	Tyr	Met	Gln	Leu						
			100					105							

&lt;210&gt; 1104

&lt;211&gt; 162

&lt;212&gt; PRT

&lt;213&gt; Pinus radiata

&lt;400&gt; 1104

Arg	Gly	Gln	Pro	Arg	Arg	His	Leu	Leu	Thr	Thr	Gly	Trp	Ser	Val	Phe
1				5					10					15	
Val	Ser	Ala	Lys	Arg	Leu	Val	Ala	Gly	Asp	Ala	Phe	Ile	Phe	Leu	Arg
			20					25					30		
Gly	Glu	Asn	Ser	Glu	Leu	Arg	Val	Gly	Val	Arg	Arg	Val	Met	Arg	Gln
		35					40					45			
Gln	Ser	Asn	Met	Pro	Ser	Ser	Val	Ile	Ser	Ser	His	Ser	Met	His	Leu
		50				55					60				
Gly	Val	Ile	Ala	Thr	Ala	Ser	His	Ala	Val	Thr	Thr	Arg	Thr	Met	Phe
65					70					75					80
Thr	Val	Tyr	Tyr	Lys	Pro	Arg	Thr	Ser	Gln	Ser	Glu	Phe	Ile	Ile	Pro
			85						90					95	
Tyr	Asp	Lys	Tyr	Met	Glu	Ala	Val	Asn	Ser	Asn	Leu	Ser	Val	Gly	Met
			100					105					110		
Arg	Phe	Lys	Met	Arg	Phe	Glu	Gly	Glu	Glu	Ala	Pro	Glu	Arg	Arg	Phe
		115					120					125			
Thr	Gly	Thr	Ile	Ile	Gly	Ile	Gly	Asp	Val	Asp	Pro	Ser	Arg	Trp	Pro
		130				135					140				

Ser Ser Lys Trp Arg Ser Leu Lys Val Gln Trp Asp Glu Thr Cys Ala  
 145 150 155 160  
 Ile Pro

<210> 1105  
 <211> 115  
 <212> PRT  
 <213> Pinus radiata

<400> 1105  
 Met Ala Gln Ser Glu Glu Gln Pro Asn Glu Ala Thr Val Pro Arg Pro  
 1 5 10 15  
 Ala Asp Ser His Arg Ser Ile Pro Thr Pro Phe Leu Met Lys Thr Tyr  
 20 25 30  
 Arg Leu Val Asp Asp Pro Ser Leu Asn Asp Ile Ile Ser Trp Asn Glu  
 35 40 45  
 Asp Gly Thr Thr Phe Ile Val Trp Arg Pro Ala Glu Phe Ala Arg Asp  
 50 55 60  
 Leu Leu Pro Asn Tyr Phe Lys His Asn Asn Phe Ser Ser Phe Val Arg  
 65 70 75 80  
 Gln Leu Asn Thr Tyr Gly Phe Arg Lys Ile Val Pro Asp Arg Trp Glu  
 85 90 95  
 Phe Ala Asn Glu Phe Phe Arg Arg Gly Glu Lys Lys Leu Leu Cys Glu  
 100 105 110  
 Ile His Arg  
 115

<210> 1106  
 <211> 37  
 <212> PRT  
 <213> Pinus radiata

<400> 1106  
 Met Gly Arg Ala Pro Cys Cys Thr Lys Val Gly Leu Asn Lys Gly Ala  
 1 5 10 15  
 Trp Ser Ala Glu Glu Asp Ser Leu Leu Gly Arg Tyr Ile Gln Thr His  
 20 25 30  
 Gly Glu Gly Asn Trp  
 35

<210> 1107  
 <211> 187  
 <212> PRT  
 <213> Pinus radiata

<400> 1107  
 Thr Arg Ser Gly Ser Lys Asn Ser Ala Arg Ala Pro Val Ser Gly Phe  
 1 5 10 15  
 Ser Met Asn Ser Asn Met Gly Val Ser Gly Gly Leu Asp Glu Ser Gly  
 20 25 30  
 Phe Ser Gln Pro Pro Pro Asn Phe Ala Lys Met Asn Ala Pro Thr Arg  
 35 40 45  
 Thr Phe Thr Lys Val Tyr Lys Leu Gly Ser Val Gly Arg Ser Val Asp  
 50 55 60  
 Val Thr Arg Phe Arg Gly Tyr Pro Asp Leu Arg Ala Glu Leu Asp Arg  
 65 70 75 80  
 Met Phe Gly Leu Glu Gly Gln Leu Glu Asn Pro Arg Ser Ser Trp Gln  
 85 90 95  
 Leu Val Phe Val Asp Lys Glu Lys Asp Val Leu Leu Leu Gly Asp Asp  
 100 105 110

Pro Trp Glu Glu Phe Val Asn Asn Val Arg Phe Ile Lys Ile Leu Ser  
 115 120 125  
 Pro Pro Glu Val Gln Gln Met Ser Gln Glu Asp Met Glu Phe Trp Ser  
 130 135 140  
 Ser Ile Pro Thr Gln Gln Thr Ser Ser Ser Asp Asp Cys Val  
 145 150 155 160  
 Ala Arg Asn Ser Ser Arg Asn Ile Arg Ser Val Leu Thr Ser Pro Gly  
 165 170 175  
 Ser Leu Asp Val Leu Ser Val Asp Pro Ile Val  
 180 185

<210> 1108  
 <211> 130  
 <212> PRT  
 <213> Pinus radiata

<400> 1108  
 His Asp Asn Glu Trp Lys Phe Arg His Ile Tyr Arg Gly Gln Pro Lys  
 1 5 10 15  
 Arg His Leu Leu Thr Thr Gly Trp Ser Val Phe Val Ser Ala Lys Arg  
 20 25 30  
 Leu Ser Ala Gly Asp Ala Val Leu Phe Ile Arg Asn Glu Lys Gly Gln  
 35 40 45  
 Leu Leu Leu Gly Ile Arg Arg Ala Asn Arg Ser Gln Thr Val Met Pro  
 50 55 60  
 Ser Ser Val Leu Ser Ser Asp Ser Met His Ile Gly Val Leu Ala Ala  
 65 70 75 80  
 Ala Ala His Ala Ala Ser Thr Asn Cys Arg Phe Thr Ile Phe Tyr Asn  
 85 90 95  
 Pro Arg Ala Ser Pro Ser Glu Phe Val Ile Pro Leu Ser Lys Tyr Glu  
 100 105 110  
 Lys Ala Val Tyr His Thr Arg Val Ser Ile Gly Met Arg Phe Arg Met  
 115 120 125  
 Leu Phe  
 130

<210> 1109  
 <211> 81  
 <212> PRT  
 <213> Pinus radiata

<400> 1109  
 Met Gly Arg Thr Pro Cys Cys Glu Lys Gly His Thr Asn Lys Gly Ala  
 1 5 10 15  
 Trp Thr Lys Glu Glu Asp Asp Arg Leu Ile Ala His Ile Arg Ala His  
 20 25 30  
 Gly Glu Gly Arg Trp Arg Ser Leu Pro Lys Ala Ala Gly Leu Met Arg  
 35 40 45  
 Cys Gly Lys Ser Cys Arg Leu Arg Trp Ile Asn Tyr Leu Arg Pro His  
 50 55 60  
 Leu Lys Arg Gly Asn Phe Ser Glu Glu Glu Asp Glu Phe Ile Ile Lys  
 65 70 75 80  
 Leu

<210> 1110  
 <211> 146  
 <212> PRT  
 <213> Pinus radiata

<400> 1110



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Met Gly Arg Ala Pro Cys Trp Asp Lys Met Gly Val Lys Lys Gly Ala
 1           5           10           15
Trp Thr Leu Asp Glu Asp Lys Ile Leu Val Asp Tyr Ile Thr Lys His
          20           25           30
Gly His Gly Asn Trp Arg Ala Leu Pro Lys Gln Ala Gly Leu Leu Arg
          35           40           45
Cys Gly Lys Ser Cys Arg Leu Arg Trp Thr Asn Tyr Leu Lys Pro Asp
          50           55           60
Ile Lys Arg Gly Asn Phe Ser Pro Glu Glu Glu Asp Gln Ile Ile Lys
65           70           75           80
Leu His Glu Leu Ile Gly Asn Arg Trp Ser Thr Ile Ala Ser Tyr Leu
          85           90           95
Pro Gly Arg Thr Asp Asn Glu Ile Lys Asn Val Trp Asn Thr His Leu
          100          105          110
Lys Lys Arg Leu Ala Arg Met Lys Ala Asp Ser Val Ala Val Asp Ala
          115          120          125
Gln Pro Thr Pro Ala Ser Ser Leu Ala Ser Ser Thr Thr Glu Met Thr
          130          135          140
Cys His
145

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<210> 1111
<211> 72
<212> PRT
<213> Pinus radiata

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<400> 1111
Cys Ile Glu Ala Asn Gly Gly Gly Ala Pro Gly Arg Ser Leu Pro Lys
 1           5           10           15
Ala Ala Gly Leu Gln Arg Cys Gly Lys Ser Cys Arg Leu Arg Trp Ile
          20           25           30
Asn Tyr Leu Arg Pro Asp Asp Val Lys Arg Gly Asn Phe Thr Glu Glu
          35           40           45
Glu Asp Asp Leu Ile Ile Lys Leu His Ser Leu Leu Gly Asn Lys Trp
          50           55           60
Ser Leu Ile Ala Gly Arg Leu Pro
          65           70

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<210> 1112
<211> 112
<212> PRT
<213> Pinus radiata

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<400> 1112
Met Arg Arg Leu Arg Cys Glu Lys Gly Asn Thr Asn Lys Gly Ala Trp
 1           5           10           15
Thr Gln Gln Glu Asp Ala Arg Leu Ile Ala Tyr Ile Arg Ala His Gly
          20           25           30
Glu Gly Gly Trp His Ser Leu Pro Arg Ala Ala Gly Leu Arg Cys
          35           40           45
Gly Lys Ser Cys Arg Leu Arg Trp Ile Asn Tyr Leu Arg Pro Asn Leu
          50           55           60
Lys Arg Gly Asn Phe Ser Glu Glu Glu Asp Asp Leu Ile Ile Lys Leu
65           70           75           80
His Asn Leu Leu Gly Asp Lys Trp Ser Leu Ile Ala Gly Arg Leu Pro
          85           90           95
Gly Arg Met Glu Asp Gln Ile Lys Asn Tyr Trp Asp Thr His Phe Lys
          100          105          110

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<210> 1113
<211> 148

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&lt;212&gt; PRT

&lt;213&gt; Pinus radiata

&lt;400&gt; 1113

Gly Lys Glu Val His Ile Ala Glu Pro Asp Gln Val Ser Asp Pro Pro  
 1 5 10 15  
 Lys Ala Ile Lys Tyr Glu Pro Pro Ala Val Ser Cys Asp Gln Glu Lys  
 20 25 30  
 Pro Leu Gln Lys Leu Ser Lys Glu Thr Gln Val Lys Gln His Gly Asn  
 35 40 45  
 Pro Thr Arg Ser Cys Thr Lys Val His Lys Gln Gly Ile Ala Leu Gly  
 50 55 60  
 Arg Ala Val Asp Leu Thr Lys Phe Glu Gly Tyr Glu Glu Leu Ile Cys  
 65 70 75 80  
 Glu Leu Glu Arg Met Phe Asn Ile Glu Gly Glu Leu Arg Asn Pro Ser  
 85 90 95  
 Lys Gly Trp Gln Val Val Tyr Thr Asp Asn Glu Gly Asp Met Met Leu  
 100 105 110  
 Val Gly Asp Asp Pro Trp Gln Glu Phe Cys Ser Ile Val Arg Lys Ile  
 115 120 125  
 Phe Ile Tyr Thr Arg Glu Glu Val Glu Lys Met Thr Pro Gln Lys His  
 130 135 140  
 Ala Lys Leu Gln  
 145

&lt;210&gt; 1114

&lt;211&gt; 273

&lt;212&gt; PRT

&lt;213&gt; Pinus radiata

&lt;400&gt; 1114

Glu Thr Gln Ser Ser Asp Asn Asn Tyr Met Val Gly Phe Val Leu Ala  
 1 5 10 15  
 Asn Val Val Gly Leu Gln Tyr Tyr Thr Gly Thr Ile Asn Gly Arg Glu  
 20 25 30  
 Met Ile Arg Leu Val Arg Glu Pro Glu Asn Arg Tyr Asp Pro Asn Ala  
 35 40 45  
 Ile Lys Val Leu Asn Met Ser Gly Gln Gln Val Gly His Ile Glu Arg  
 50 55 60  
 Ala Val Ala Leu Ala Leu Ala Ser His Val Asp Gln Ser Leu Ile Leu  
 65 70 75 80  
 Ile Glu Gly Ile Val Ser Arg Ala Leu His Lys Gly Ala Tyr Lys Leu  
 85 90 95  
 Pro Cys Gln Ile Tyr Ile Phe Ser His Arg Asp Ser Met Gly Met Val  
 100 105 110  
 Leu Gln Leu Leu Lys Gly Ala Gly Leu Asn Val Ile Thr Ala Glu Asp  
 115 120 125  
 Gln Glu Phe Leu Thr Ala Glu Ser Ile Ala Ala Lys Glu Ile Tyr Glu  
 130 135 140  
 Asp Pro Gly Val Lys Glu Val Arg Arg Val Asp Asp Ile Phe Gly Ser  
 145 150 155 160  
 Leu Asn Asn Pro Lys Lys Arg Gln Ser Met Glu Ala Cys Glu Leu Val  
 165 170 175  
 Thr Ser Thr Leu Leu Gln His Gln Lys Glu Ala Leu Ala Trp Met Val  
 180 185 190  
 Gln Arg Glu Asn Ser Ser Glu Leu Pro Pro Phe Trp Asp Val Cys Asp  
 195 200 205  
 Lys Thr Ser Lys Ser Gln Gln Leu Arg Tyr Lys Asn Val Leu Thr Asn  
 210 215 220  
 Phe Glu Thr Asn Gly Arg Pro Lys Pro Leu Arg Gly Gly Ile Leu Ala  
 225 230 235 240

[illegible]

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<210> 1115
<211> 129
<212> PRT
<213> Pinus radiata
```

[illegible]

```
<210> 1116
<211> 90
<212> PRT
<213> Pinus radiata
```

Met Asp Arg Glu Lys Leu Met Lys Met Ala Gly Ala Val Arg Thr Gly															
1				5					10					15	
Gly	Lys	Gly	Thr	Met	Arg	Arg	Lys	Lys	Lys	Thr	Ile	His	Lys	Thr	Ala
			20					25					30		
Thr	Ala	Asp	Asp	Lys	Arg	Leu	Gln	Ser	Thr	Leu	Lys	Arg	Ile	Gly	Val
		35					40					45			
Asn	Asn	Ile	Pro	Ala	Ile	Glu	Glu	Val	Asn	Ile	Phe	Lys	Asp	Asp	His
	50					55					60				
Val	Ile	His	Phe	Ala	Asn	Pro	Lys	Val	Gln	Ala	Ser	Ile	Ala	Ala	Asn
65					70					75					80
Thr	Trp	Val	Gly	Ser	Gly	His	Arg	Lys	Gln						
				85					90						

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<210> 1117
<211> 33
<212> PRT
<213> Pinus radiata
```

<400> 1117  
 Gly Lys Thr Gln Met Lys Leu Lys Arg Glu Arg Asp Gln Gln Ala Arg  
 1 5 10 15  
 Asp Ala Ser Lys Arg Arg Asn Gly Leu Lys Lys Ala Tyr Glu Leu  
 20 25 30

Ser

<210> 1118  
 <211> 107  
 <212> PRT  
 <213> Pinus radiata

<400> 1118  
 Met Gly Arg Ala Pro Cys Cys Ala Asn Gly Asp Arg Ser Lys Gly Ala  
 1 5 10 15  
 Trp Thr Lys Glu Asp Asp Arg Leu Thr Gln Tyr Ile Gln Ala His  
 20 25 30  
 Gly Glu Gly Cys Trp Arg Ser Leu Pro Lys Ala Ala Gly Leu Leu Arg  
 35 40 45  
 Cys Gly Lys Ser Cys Arg Leu Arg Trp Ile Asn Tyr Leu Arg Pro Asp  
 50 55 60  
 Leu Lys Arg Gly Gly Phe Ser Glu Asp Glu Asp Leu Ile Leu Lys  
 65 70 75 80  
 Leu His Ala Leu Leu Gly Asn Lys Trp Ser Leu Ile Ala Gly Arg Leu  
 85 90 95  
 Pro Gly Arg Thr Gly His Gln Asn Gln Asn Tyr  
 100 105

<210> 1119  
 <211> 112  
 <212> PRT  
 <213> Pinus radiata

<400> 1119  
 Arg Lys Ser Asn Val His Ser Phe Cys Lys Thr Leu Thr Ala Ser Asp  
 1 5 10 15  
 Thr Ser Thr His Gly Gly Phe Ser Val Leu Arg Arg His Ala Asp Glu  
 20 25 30  
 Cys Leu Pro Pro Leu Asp Met Ser Gln Gln Pro Pro Ser Gln Glu Leu  
 35 40 45  
 Val Ala Arg Asp Leu His Gly Met Glu Trp Arg Phe Arg His Ile Phe  
 50 55 60  
 Arg Gly Gln Pro Arg Arg His Leu Leu Thr Thr Gly Trp Ser Val Phe  
 65 70 75 80  
 Val Ser Ser Lys Arg Leu Val Ala Gly Asp Ala Phe Ile Phe Leu Arg  
 85 90 95  
 Gly Glu Ser Gly Glu Leu Arg Val Gly Val Arg Arg Ala Met Arg Gln  
 100 105 110

<210> 1120  
 <211> 156  
 <212> PRT  
 <213> Pinus radiata

<400> 1120  
 Ala Leu Arg Glu Ala Ile Lys Asn Gly Ala Cys Pro Asn Cys Gly Gly  
 1 5 10 15  
 Ser Thr Ser Leu Gly Glu Met Pro Gly Phe Asp Glu His His Phe Arg  
 20 25 30  
 Ile Glu Asn Thr Arg Leu Lys Glu Glu Leu Asp Arg Val Ser Gly Ile  
 35 40 45  
 Ala Thr Lys Tyr Ile Gly Arg Ser Met Pro His Leu Ala Pro Ile Ala  
 50 55 60  
 Thr Pro Pro Met Leu Met Ser Ser Leu Glu Leu Ala Met Gly Ser Phe  
 65 70 75 80

Gly Gly Lys Gln Ser Gln Pro Ala Ala Pro Ser Val Asp Phe Ile Ser  
                             85                            90                            95  
 Gly Pro Leu Ala Asp Gly Pro Ile Ile Asn Cys Gly Thr Leu Thr Asp  
                             100                            105                            110  
 Leu Asp Lys Pro Leu Ala Leu Glu Leu Ala Met Asn Gly Val Glu Glu  
                             115                            120                            125  
 Leu Ile Arg Met Ala Gln Thr Asp Glu Pro Leu Trp Leu Lys Asp Val  
                             130                            135                            140  
 Asn Ala Gly Ser Val Lys Glu Leu Phe Glu Leu Gly  
                             145                            150                            155

<210> 1121  
 <211> 116  
 <212> PRT  
 <213> Pinus radiata

<400> 1121  
 Gly Phe Phe Ile Phe Met Cys Arg Leu Pro Gly Arg Thr Leu Ala Asn  
   1                            5                            10                            15  
 Gly Arg Leu Ile Trp Leu Cys Gln Ala Asn Glu Ala Asp Ser Lys Val  
                             20                            25                            30  
 Phe Pro Arg Ala Leu Leu Ala Lys Ser Ala Ser Ile Gln Thr Val Val  
                             35                            40                            45  
 Cys Ile Pro Leu Ala Asp Gly Val Leu Glu Phe Gly Thr Thr Glu Val  
                             50                            55                            60  
 Glu Arg Glu Asp Pro Gly Leu Val Gln Arg Thr Ile Ser Phe Phe Leu  
   65                            70                            75                            80  
 Glu Tyr Pro Lys Pro Ile Cys Ser Glu Gln Ser Thr Ser Ser Pro Gln  
                             85                            90                            95  
 Cys Ser Asp Arg Asp Glu Lys Asp Gln Val Gly Met Val Thr Ile Met  
                             100                            105                            110  
 Ser Ser Asp Ser  
                             115

<210> 1122  
 <211> 104  
 <212> PRT  
 <213> Pinus radiata

<400> 1122  
 Phe Leu Phe Asp Ser Leu Asp Ala Val Asn Ile Asn Met Glu Ala Val  
   1                            5                            10                            15  
 His Lys Ile Glu Lys Phe Leu Leu Ala Pro Lys Ile Asp Ala Thr Ile  
                             20                            25                            30  
 Ser Ser Ala Ala Ala Pro Pro Trp Lys Thr Leu Phe Ala Ala Ala Gly  
                             35                            40                            45  
 Phe Ser Pro Val Ala Phe Ser Asn Phe Thr Glu Thr Gln Ala Glu Tyr  
                             50                            55                            60  
 Leu Ile Gln Arg Leu His Ser Arg Gly Phe Glu Val Glu Lys Ala His  
   65                            70                            75                            80  
 Ala Ala Leu Leu Leu Gly Trp Gln Gly Arg Pro Leu Val Ser Ala Thr  
                             85                            90                            95  
 Ala Trp Arg Cys Gly Pro Pro Pro  
                             100

<210> 1123  
 <211> 169  
 <212> PRT  
 <213> Pinus radiata

<400> 1123

Glu Glu Lys Gln Leu Ser Ile Ser Gly Arg Asn Trp Gly Glu Val Asn  
 1 5 10 15  
 Leu Glu Gly Asn Met Leu Thr Phe Leu Val Gly Ser Lys Pro Ala Phe  
 20 25 30  
 Glu Val Ser Leu Ala Asp Val Ser Gln Thr Gln Leu Gln Gly Lys Asn  
 35 40 45  
 Asp Val Val Leu Glu Phe His Val Asp Asp Thr Thr Gly Ala Asn Glu  
 50 55 60  
 Lys Asp Ser Leu Met Glu Leu Ser Phe His Ile Pro Asn Ser Asn Thr  
 65 70 75 80  
 Thr Phe Ala Gly Asp Glu Ala Ser Pro Pro Ala Gln Ile Phe Arg Glu  
 85 90 95  
 Lys Ile Met Ser Met Ala Asp Val Gly Ser Ser Gly Gly Glu Ala Val  
 100 105 110  
 Ala Leu Phe Glu Asp Ile Ala Ile Leu Thr Pro Arg Gly Arg Tyr Thr  
 115 120 125  
 Ile Glu Leu His Leu Ser Phe Met Arg Leu Gln Gly Gln Ala Ser Asp  
 130 135 140  
 Phe Lys Ile Gln Tyr Ser Ser Val Leu Arg Leu Phe Val Leu Pro Lys  
 145 150 155 160  
 Ser Pro His Thr Leu Val Val Ile Thr  
 165

<210> 1124  
 <211> 124  
 <212> PRT  
 <213> Pinus radiata

<400> 1124  
 Leu Gly His Ser Gln Asn Phe Ser Thr Asp Val Asn Arg Met Pro Asp  
 1 5 10 15  
 Val Pro Pro Arg Arg Gly Gly His Arg Arg Ala Gln Ser Glu Ile Ala  
 20 25 30  
 Phe Arg Leu Pro Asp Asp Ile Met Phe Asp Gly Asp Leu Gly Phe Ala  
 35 40 45  
 Gly Phe Asp Met Pro Thr Val Ser Asp Asp Ala Thr Glu Ala Glu Asp  
 50 55 60  
 Leu Ile Ser Met Tyr Met Asp Met Glu Lys Leu Thr Ser Phe Gly Glu  
 65 70 75 80  
 Pro Leu Asn Ser Ala Ala Gly Glu Gly Ser Lys Leu Pro Ser Gly Ala  
 85 90 95  
 Glu Thr Asn Arg Pro Pro His His Ser Arg Ser Leu Ser Val Asp Ala  
 100 105 110  
 Val Phe Ser Gly Phe Glu Gly Asn Met Glu Asp Thr  
 115 120

<210> 1125  
 <211> 70  
 <212> PRT  
 <213> Pinus radiata

<400> 1125  
 Met Asp Arg Ser Ser Ser Glu Asp Ser Val Asp Ser Gln Gly Asp Val  
 1 5 10 15  
 Asn Ala Asn Tyr Lys Met Val Phe Ser Glu Asp Glu Lys Asp Leu Ile  
 20 25 30  
 Ser Arg Leu Tyr Asn Leu Leu Gly Gln Arg Trp Ala Leu Ile Ala Gly  
 35 40 45  
 Arg Ile Pro Gly Arg Thr Ala Glu Glu Ile Glu Lys Tyr Cys Ser Arg  
 50 55 60  
 Arg Tyr Ile Ser Glu Tyr

65

70

<210> 1126  
 <211> 120  
 <212> PRT  
 <213> Pinus radiata

<400> 1126  
 Gly Gly Glu Ile Arg Ile Leu Arg Gly Phe Phe Val Asn Gln Lys Thr  
 1 5 10 15  
 Asp Gly Gln Gly Ser Ser Phe Ala Ala Ser Ser Ser Arg Asn Ser Ser  
 20 25 30  
 Phe Ser Asn Gly Tyr Asp Asn Pro Gln Asn Thr Asn Lys Asn Ser Ser  
 35 40 45  
 Ser Gly Gly Thr Gly Asp Ala Gly Ser Phe Glu Cys Asn Ile Cys Leu  
 50 55 60  
 Glu Leu Ala Gln Asp Pro Ile Val Thr Leu Cys Gly His Leu Phe Cys  
 65 70 75 80  
 Trp Pro Cys Leu Tyr Lys Trp Leu His Gly His Ser Lys Ser Gln Glu  
 85 90 95  
 Cys Pro Val Cys Lys Ala Leu Val Glu Glu Asp Lys Ile Val Pro Leu  
 100 105 110  
 Tyr Gly Arg Gly Lys Val Gly Ser  
 115 120

<210> 1127  
 <211> 233  
 <212> PRT  
 <213> Pinus radiata

<400> 1127  
 Met Gly Ala Pro Lys Gln Lys Trp Thr Ser Glu Glu Glu Gly Ala Leu  
 1 5 10 15  
 Lys Ala Gly Val Glu Lys Tyr Gly Thr Gly Lys Trp Arg Thr Ile Gln  
 20 25 30  
 Lys Asp Pro Glu Phe Gly His Cys Leu Ala Ala Arg Ser Asn Val Asp  
 35 40 45  
 Leu Lys Asp Lys Trp Arg Asn Met Ser Val Ser Ala Ser Gly Gln Gly  
 50 55 60  
 Ser Arg Asp Lys Val Lys Thr Pro Arg Val Lys Ala Ile Ala Ser Leu  
 65 70 75 80  
 Pro Tyr Ser Ser Val Thr Ala Glu Ser Thr Ser Val Phe Ser Ile Glu  
 85 90 95  
 Ala Thr Thr Ser Thr Thr Pro Asp Asn Leu Ile Ser Pro Lys Ser Ser  
 100 105 110  
 Ser Asn Gly Lys Ile His Ser Pro Arg Tyr Asp Gly Met Ile Leu Glu  
 115 120 125  
 Ala Leu Thr Ser Met Gln Asp Pro Asn Gly Ile Asp Ile Ala Thr Ile  
 130 135 140  
 Ala Ser Phe Met Glu Glu Arg His Glu Leu Pro Pro Asn Phe Lys Arg  
 145 150 155 160  
 Ala Leu Gly Thr Lys Leu Arg Arg Leu Val Ala Gln Glu Lys Val Ile  
 165 170 175  
 Lys Ile Arg Asn Ser Tyr Lys Leu Lys Asp Met Thr Ser Thr Glu Val  
 180 185 190  
 Thr Ser Glu Val Leu Gly Ser Ala Ile Pro Ile Asp Asn Ser Met Gln  
 195 200 205  
 Tyr Ser Asn Ala Phe Thr Asn Thr Ile Asp Thr Phe Ser Val Asp Arg  
 210 215 220  
 Val Asn Glu Ala Ser Met Ala Ala Ala  
 225 230

<210> 1128  
 <211> 144  
 <212> PRT  
 <213> Pinus radiata

<400> 1128  
 His Ser Arg Pro Leu Ile Lys Glu Glu Ala Glu Ser Gly Asp Asn Ser  
 1 5 10 15  
 Ala Asn Ser Ala Asp Val Glu Thr Leu Leu Pro Gln Val Asp Glu Thr  
 20 25 30  
 Ala Ser Ala Asp Leu Thr Val Phe Pro Gly Phe Val Thr Pro Tyr Val  
 35 40 45  
 Pro Tyr Gly Phe Pro Ile Trp His Thr Phe Arg Pro Thr Ile Thr Gln  
 50 55 60  
 Thr Ser Asn Val Tyr Lys Pro Thr Ala Val Met Pro Thr Ala Pro Ile  
 65 70 75 80  
 Lys Met Asp Glu Cys Thr Gly Leu Ser Gln Leu Ser Leu Gly Gly Val  
 85 90 95  
 Ala Ala Ala Ser Ala Met Lys Pro Ser Glu Leu Ser Leu Lys Leu His  
 100 105 110  
 Gly Arg Pro Pro Ser Arg Gln Ser Ala Phe Gln Ala Lys Pro Ser Leu  
 115 120 125  
 Asn Glu Ser Ser Ser Leu Ser Ser Ser Asn Val Ile Ser Val Val  
 130 135 140

<210> 1129  
 <211> 187  
 <212> PRT  
 <213> Pinus radiata

<400> 1129  
 His Pro Tyr Met Trp Gly Gly Gln Pro Leu Met Pro Pro Tyr Gly Thr  
 1 5 10 15  
 Pro Leu Pro Tyr Pro Ala Met Tyr Pro His Gly Gly Ile Tyr Ala His  
 20 25 30  
 Pro Ser Met Pro Pro Gly Ala Leu Pro Tyr Gly His Tyr Gly Met Pro  
 35 40 45  
 Ser Pro Gly Asn Ala Glu Val Thr Thr Thr Leu Ala Leu Pro Asn Ala  
 50 55 60  
 Glu Ala Glu Ala Lys Ser Ser Glu Gly Lys Glu Arg Asn Thr Met Lys  
 65 70 75 80  
 Arg Ser Lys Gly Ser Leu Gly Ser Leu Gly Met Ile Thr Gly Lys Gly  
 85 90 95  
 Gly Glu Gly Gly Lys Ala Thr Ser Gly Ser Ala Asn Glu Ala Met Ser  
 100 105 110  
 Gln Ser Gly Asp Ser Gly Ser Asp Gly Ser Ser Glu Gly Ser Glu Glu  
 115 120 125  
 Tyr Asn Thr Gln Thr Glu Ser Gln Val Ala Arg Lys Arg Ser Phe Asp  
 130 135 140  
 Gln Met Ile Val Asp Gly Ala Asn Ala Gln Ser Thr Asn Ile Gln Ser  
 145 150 155 160  
 Tyr Asn Ser Gln Ala Gly Glu Pro Tyr Val Thr Ser Gly Gly His Ala  
 165 170 175  
 Met Gly Asn Pro Ile Ser Gln Ala Val Ala Ala  
 180 185

<210> 1130  
 <211> 80  
 <212> PRT  
 <213> Pinus radiata



<400> 1130  
 Gly Lys Val Thr Ala Ser Gly Lys Val Thr Ser Gly Val Asn Asp Leu  
 1 5 10 15  
 Phe Trp Glu Gln Phe Leu Thr Glu Thr Pro Gly Ser Ala Thr Asp Thr  
 20 25 30  
 Gln Glu Ala Glu Ser Lys Ile Gln Glu Thr Arg Thr Lys Asp Gln Asp  
 35 40 45  
 Glu Arg Leu Pro Glu Asn Gly Lys Cys Trp Ser Asn Lys Gln Thr Leu  
 50 55 60  
 Asp Gln Leu Thr Glu Gln Met Gly Gln Leu Ala Ser Gly Thr Gln Thr  
 65 70 75 80

<210> 1131  
 <211> 96  
 <212> PRT  
 <213> Pinus radiata

<400> 1131  
 Met Asn Met Asp Ser Arg Gln Ser Gly Glu Glu Glu Asp Cys Asn Val  
 1 5 10 15  
 Thr Arg Pro Gly Gly Gly Gly Gly Ile Ser Leu His Val Ser Ser Val  
 20 25 30  
 Glu Tyr Cys Gln Lys Ser Ala Cys Val Ala His Asp Ile Ser Ser Asp  
 35 40 45  
 Glu Gln Asp Leu Ile Asn Arg Leu His Asn Leu Leu Gly Asp Arg Trp  
 50 55 60  
 Ala Leu Ile Ala Gly Arg Leu Pro Trp Arg Arg Arg Glu Glu Ile Glu  
 65 70 75 80  
 Asn Tyr Cys Lys Met Arg Tyr Thr Ala Thr Ser Ser Ser Arg Ser  
 85 90 95

<210> 1132  
 <211> 193  
 <212> PRT  
 <213> Pinus radiata

<400> 1132  
 Glu Arg Glu Arg Gly Arg Lys Pro Ala Asn Gly Arg Glu Glu Pro Leu  
 1 5 10 15  
 Asn His Val Glu Ala Glu Arg Gln Arg Arg Glu Lys Leu Asn Gln Lys  
 20 25 30  
 Phe Tyr Glu Leu Arg Ala Val Val Pro Asn Val Ser Lys Met Asp Lys  
 35 40 45  
 Ala Ser Leu Leu Gly Asp Ala Ala Ala Tyr Ile Lys Asp Leu Phe Ser  
 50 55 60  
 Lys Gln Gln Asp Leu Glu Ser Glu Arg Val Asp Met Gln Val Gln Ile  
 65 70 75 80  
 Asp Thr Ile Lys Lys Glu Leu Leu Met Asn Ser Leu Lys Leu Ala Ala  
 85 90 95  
 Lys Glu Ala Lys Asp Leu Ser Ser Ile Asp Leu Lys Gly Phe Ser Gln  
 100 105 110  
 Gly Lys Phe Pro Gly Leu Asn Ser Glu Val Arg Ile Val Gly Arg Glu  
 115 120 125  
 Ala Ile Ile Arg Ile Gln Cys Thr Lys His Asn His Pro Val Ala Arg  
 130 135 140  
 Leu Met Ile Ala Leu Gln Glu Leu Asp Leu Glu Val Leu His Ala Ser  
 145 150 155 160  
 Ile Ser Thr Val Lys Asp Ser Leu Ile Ile Gln Thr Val Ile Val Lys  
 165 170 175  
 Met Thr Arg Gly Leu Tyr Thr Glu Asp Gln Leu His Ala Leu Leu Cys

180 185 190

Lys

<210> 1133  
 <211> 88  
 <212> PRT  
 <213> Pinus radiata

<400> 1133  
 Met Ala Tyr Asn Arg Lys His Ala Ala Ala Thr Ser Pro Asp Ser  
 1 5 10 15  
 Ser Leu Gly Ser Asp Asn Glu Ser Gly Gly Gly Gly Gly Gly Gly  
 20 25 30  
 Gly Lys Gly Gln Ser Thr Lys Asn Gly Asn Gly Asn Tyr Ile Arg Glu  
 35 40 45  
 Gln Asp Arg Leu Leu Pro Ile Ala Asn Val Gly Arg Ile Met Lys Arg  
 50 55 60  
 Ala Leu Pro Gly Asn Ala Lys Ile Ser Lys Asp Ala Lys Glu Thr Val  
 65 70 75 80  
 Gln Glu Cys Val Ser Glu Phe Ile  
 85

<210> 1134  
 <211> 141  
 <212> PRT  
 <213> Pinus radiata

<400> 1134  
 Met Ala Thr Arg Asn Pro Phe Asp Leu Leu Glu Asp Asp Asp Asn Gly  
 1 5 10 15  
 Asp Pro Ser Ser Leu Leu Asp Thr Leu Ala Ala Ala Lys Asp Lys Pro  
 20 25 30  
 Ala Ala Val Ala Ala Lys Lys Gln Gln Pro Ala Val Ser Ala Ser Gly  
 35 40 45  
 Lys Leu Pro Thr Lys Pro Leu Pro Pro Ala Gln Ala Val Lys Glu Ser  
 50 55 60  
 Arg Val Ser Pro Asn Glu Gly Gly Arg Gly Arg Gly Gly Arg Gly  
 65 70 75 80  
 Gly Arg Gly Phe Gly Asn Arg Glu Ser Gln Glu Phe Gly Arg Gly Arg  
 85 90 95  
 Gly Gly Gly Tyr Asn Val Glu Arg Asn Phe Asn Arg Glu Asn Asn Ala  
 100 105 110  
 Tyr Ser Gly Ser Arg Val Gly Phe Tyr Asp Asn Asn Ser Asp Leu Ile  
 115 120 125  
 Pro Ser Arg Asn Glu Asp Gly Asp Gly Ala Ser Asn Asp  
 130 135 140

<210> 1135  
 <211> 43  
 <212> PRT  
 <213> Pinus radiata

<400> 1135  
 Met Pro Arg Val Lys Leu Ile Ser Arg Asn Phe Met Asp Met Val Ala  
 1 5 10 15  
 Ala Leu Pro Ala Ala Lys Leu Asp Arg Leu Tyr Asp Lys Ser Leu His  
 20 25 30  
 Leu Arg Ser Gly Leu Arg Ser Leu Thr Pro Val  
 35 40

<210> 1136  
 <211> 48  
 <212> PRT  
 <213> Pinus radiata

<400> 1136  
 Met Ala Glu Glu Met Asp Thr Pro Thr Lys Thr Thr Lys Thr Pro Thr  
 1 5 10 15  
 Ser Gln Glu Gln Thr Ser Thr Ser Thr Pro Val Ala Tyr Pro Glu Trp  
 20 25 30  
 Ala Ala Pro Ile Gln Ala Leu Tyr Asn Ser Gly Lys Thr Pro Leu Pro  
 35 40 45

<210> 1137  
 <211> 190  
 <212> PRT  
 <213> Pinus radiata

<400> 1137  
 Ser Phe Ser Ser Thr Arg Glu Ser Met Glu Arg Arg Asp Gln Ser Pro  
 1 5 10 15  
 Val Ala Ala Arg His Pro Met Arg Lys His Tyr Arg Gly Val Arg Gln  
 20 25 30  
 Arg Gln Trp Gly Lys Trp Val Ala Glu Ile Arg Leu Pro Gln Asn Arg  
 35 40 45  
 Thr Arg Leu Trp Leu Gly Thr Phe Asp Thr Ala Glu Ala Ala Ala Leu  
 50 55 60  
 Ala Tyr Asp Arg Ala Ala Tyr Arg Trp Arg Gly Glu Cys Ala Arg Leu  
 65 70 75 80  
 Asn Phe Pro His Leu Phe Ser Lys Lys Tyr Gln Asn Ser Ser Pro Ser  
 85 90 95  
 Ser Thr Asn Gly Arg Ile Pro Arg Leu Ser Cys Glu Lys Ser Asp Gln  
 100 105 110  
 Lys Tyr Ala Tyr Asn Gly Asp Pro Val His Thr Asn Val Tyr Lys Gly  
 115 120 125  
 Pro Pro Ile Arg Ile Thr Ala Tyr Asn Gly Asp Pro Val Pro Ile Asp  
 130 135 140  
 Val Tyr Arg Ser Asp Pro Val Arg Val Ser Ala Tyr Thr Gly Asp Pro  
 145 150 155 160  
 Val Arg Ile Ser Ala Tyr Ser Gly Asp Pro Val Gly Asn Thr Val Thr  
 165 170 175  
 Leu Ala Glu Ser Glu Leu Glu Ser Ser Cys Ser His Glu Ser  
 180 185 190

<210> 1138  
 <211> 177  
 <212> PRT  
 <213> Pinus radiata

<400> 1138  
 Leu Asp Tyr Met Glu Glu Gln Asn Trp Asp Ile Asn Gly Ala Lys Tyr  
 1 5 10 15  
 Asp Gly Ser Glu Lys Trp Lys Ala His Ser Ser Glu Gln Lys Asp Leu  
 20 25 30  
 Gly Thr Ile Pro Thr Lys Val Glu Gly Arg Ile Gly Asn Arg Glu Asn  
 35 40 45  
 Ser Leu Asp Val Thr Arg Gly Ala Leu Trp Asp Ile Phe Arg Arg  
 50 55 60  
 Glu Asp Ile Pro Lys Leu Gln Asp Tyr Leu Leu Lys His Cys Gln Asp  
 65 70 75 80  
 Phe Arg His Ser Arg Asn Val Ser Val Asp Ser Val Val His Pro Ile

				85					90				95			
His	Asp	Gln	Thr	Phe	Tyr	Leu	Asn	Glu	Gly	His	Lys	Lys	Lys	Leu	Lys	
			100					105					110			
Glu	Glu	Tyr	Gln	Val	Glu	Pro	Trp	Thr	Phe	Glu	Gln	His	Leu	Gly	Glu	
		115					120					125				
Ala	Val	Phe	Ile	Pro	Ala	Gly	Cys	Pro	His	Gln	Val	Arg	Asn	Leu	Lys	
		130					135				140					
Ser	Cys	Ile	Lys	Val	Ala	Leu	Asn	Phe	Val	Ser	Pro	Glu	Asn	Leu	Gln	
145					150					155					160	
Glu	Cys	Ile	Arg	Leu	Glu	Asp	Glu	Leu	Arg	Leu	Leu	Pro	Lys	Asn	His	
				165				170						175		

Arg

<210> 1139  
 <211> 148  
 <212> PRT  
 <213> Pinus radiata

<400> 1139

Gly	Pro	Arg	Glu	Met	Thr	Glu	Glu	Glu	Arg	Glu	Thr	Lys	Lys	Ala	Ala	
1				5					10					15		
Ser	Val	Ala	Ala	Thr	Ala	Ala	Asp	Gln	Glu	Leu	Arg	Lys	Lys	Val	Leu	
		20						25					30			
Arg	Asp	Leu	His	Ala	Leu	Ile	Asn	Pro	Asn	Ala	Thr	Gly	Glu	Ala	Asp	
		35					40					45				
Pro	Ala	Glu	Phe	Pro	Gly	Asp	Asp	Ala	Thr	Val	Asp	Gly	Glu	Val	Thr	
		50				55					60					
Asp	Ala	Glu	Trp	Phe	Tyr	Leu	Val	Ser	Met	Met	Lys	Ser	Phe	Gly	Asn	
65					70				75					80		
Gly	Leu	Gly	Val	Pro	Gly	Gln	Ala	Phe	Cys	Gly	Gly	Met	Pro	Ile	Trp	
				85					90					95		
Ile	Ile	Gly	Ser	Glu	Lys	Leu	Gln	Ser	Tyr	Asn	Cys	Glu	Arg	Ala	Arg	
			100					105					110			
Gln	Ala	Gln	Gln	Phe	Gly	Ile	Gln	Thr	Met	Val	Cys	Ile	Pro	Thr	Pro	
		115					120					125				
Asn	Gly	Val	Val	Glu	Leu	Gly	Ser	Thr	Asp	Leu	Asn	Pro	Gln	Asn	Trp	
		130				135					140					

Asp Leu Ile Gln  
 145

<210> 1140  
 <211> 341  
 <212> PRT  
 <213> Pinus radiata

<400> 1140

Met	Cys	Gly	Gly	Ala	Ile	Ile	Lys	Glu	Phe	Ile	Pro	Ala	Asn	Arg	Ser	
1				5					10					15		
Arg	Arg	Val	Thr	Ala	Arg	Glu	Leu	Trp	Pro	Asp	Phe	Asp	Thr	Phe	Ala	
		20						25					30			
Glu	Phe	Ile	Asn	Gly	Gly	Ala	Thr	Gln	Glu	Thr	Phe	Asn	Lys	Pro	Gly	
		35					40					45				
Lys	Leu	Asp	Glu	Gly	Cys	Lys	Gln	Lys	Ser	Lys	Pro	Ser	Lys	Gly	Ser	
		50				55					60					
Val	Lys	Thr	Gln	Gln	Glu	Phe	Cys	Ser	Gly	Phe	Glu	Gly	Gly	Arg	Ser	
65					70				75					80		
Glu	Val	Ile	Pro	Pro	Leu	Glu	Asp	Val	Glu	Gly	Ser	Thr	Pro	Thr	Ile	
				85					90					95		
Gly	Gly	Arg	Lys	Arg	Lys	Asn	Val	Tyr	Arg	Gly	Ile	Arg	Gln	Arg	Pro	
			100					105					110			

Trp Gly Lys Trp Ala Ala Glu Ile Arg Asp Pro Ser Lys Gly Val Arg  
           115                          120                          125  
 Val Trp Leu Gly Thr Phe Asn Thr Ala Glu Glu Ala Ala Lys Ala Tyr  
           130                          135                          140  
 Asp Ala Ala Ala Lys Arg Ile Arg Gly Lys Lys Ala Lys Leu Asn Phe  
 145                          150                          155                          160  
 Ala Asp Asn Ser Cys Ser Val Lys Asn Asp Thr Ser Lys Lys Leu Ser  
                           165                          170                          175  
 Gly Lys Lys Gly Lys Leu Cys Ser Lys His Pro Ala Leu Leu Leu Glu  
                           180                          185                          190  
 Gly Phe Asn Ala Ser Cys Lys Val Lys Pro Ser Tyr Ser Ala Asn Pro  
           195                          200                          205  
 Asp Leu Leu Gly Gly Tyr Asn Ile Asn Arg Lys Val Lys Ala Ser Leu  
           210                          215                          220  
 Ser Gly Val Gly Lys Ser Asp Leu Thr Ile Cys Gly Tyr Asp Asp Met  
 225                          230                          235                          240  
 Glu Tyr Gly Asp Ser Gly Phe Ser Lys Pro Ser Ala Pro Phe Gln Asn  
                           245                          250                          255  
 Asn Ser Asn Ala Cys Thr Val Gln Phe Ser Glu His Ser Asn Leu Thr  
                           260                          265                          270  
 Gln Thr Ser Gln Lys Ser Cys Ser Cys Glu Ile Cys Ser His Asn Tyr  
           275                          280                          285  
 Ser Glu Met Ser Asn Val Met Pro Pro Ala Tyr Gly Asn Ala Val Asn  
           290                          295                          300  
 Phe Glu Pro Val Gln Thr Ser Asn Pro Gly Gly Tyr Phe Asp Ser Asp  
 305                          310                          315                          320  
 His Ser Ser Met Ser Phe Glu Gly Ala His Phe Pro Trp Ala Gln Glu  
                           325                          330                          335  
 Ile Lys Thr Pro Glu  
                           340

&lt;210&gt; 1141

&lt;211&gt; 181

&lt;212&gt; PRT

&lt;213&gt; Pinus radiata

&lt;400&gt; 1141

Ala Lys Thr Leu His Pro Cys Trp Asp Ala Tyr Gln Leu Glu Asp Glu  
   1                          5                          10                          15  
 Arg Ala Ser Ala Val Tyr Ile Asn Val Phe Ser Gly Asp Ala Thr Thr  
           20                          25                          30  
 Glu Phe Pro Ser Ala Leu Gln Leu Gly Arg Gly Gly Ile Leu Ala Asp  
           35                          40                          45  
 Ala Met Gly Leu Gly Lys Thr Val Met Thr Ile Ser Leu Leu Leu Ala  
           50                          55                          60  
 Asn Ser Gly Lys Gly Gly Phe Ser Gly Met Asp Thr Val Glu Pro Phe  
 65                          70                          75                          80  
 Ser Ala Asn Ser Cys Ser Glu Lys Thr Ile Ile His Pro Tyr Asn Ile  
                           85                          90                          95  
 Gly Val Glu Leu Gly Pro Ser Gln Tyr Thr Asn Lys Thr Gln Gly Thr  
           100                          105                          110  
 Ser Met Leu Arg Arg Ser Ser Ser Gly Leu His Lys Gly Gly Gly Asn  
           115                          120                          125  
 Leu Ile Val Cys Pro Met Thr Leu Leu Ser Gln Trp Lys Thr Glu Leu  
           130                          135                          140  
 Glu Thr His Val Gln Ser Gly Thr Met Ser Val Tyr Val His Tyr Gly  
 145                          150                          155                          160  
 Gln Ser Arg Thr Lys Asp Val Lys Ser Leu Leu Gln His Asp Val Val  
                           165                          170                          175  
 Leu Thr Thr Tyr Gly  
                           180

<210> 1142  
 <211> 59  
 <212> PRT  
 <213> Pinus radiata

<400> 1142  
 Met Phe Val Gly Met Met Ser Glu Val Gly Ser Pro Thr Ser Gln Asp  
 1 5 10 15  
 Ser Arg Asn Ser Glu Asp Gly Glu Arg Glu Asn Cys Ala Val Arg Glu  
 20 25 30  
 Gln Asp Arg Phe Met Pro Ile Ala Asn Val Ile Arg Ile Met Arg Lys  
 35 40 45  
 Val Leu Pro Thr His Ala Lys Ile Ser Asp Asp  
 50 55

<210> 1143  
 <211> 133  
 <212> PRT  
 <213> Pinus radiata

<400> 1143  
 Met Gly Phe Glu Gln Thr Arg Gly Gly Gly Gly Gly Ala Lys Met Thr  
 1 5 10 15  
 Gln His Gln Val Thr Thr Glu Leu Val Arg Gln Ala Thr Glu Arg  
 20 25 30  
 Leu Arg Lys Leu Cys Arg Thr Gly Val Lys Val Glu Leu Arg Asp Phe  
 35 40 45  
 Phe Gln Leu Cys Ile Val Leu Ala Lys Ser Ile Asp Ser Ala Val Val  
 50 55 60  
 Tyr Asn Gln Ile Pro Thr Met Val His Glu Leu Pro Gln Leu Val Arg  
 65 70 75 80  
 Gln Val Phe Glu Arg Lys Asp Asp Ile Arg Leu Gln Pro Ala Ile Met  
 85 90 95  
 Val Leu Met Leu Ser Val Lys Asn Ala Cys Arg Ser Gly Trp Phe Arg  
 100 105 110  
 Val Thr Asp Thr Asp Glu Leu Leu Thr Met Ser Lys Glu Leu Ser Ser  
 115 120 125  
 Arg Phe Thr Ser Thr  
 130

<210> 1144  
 <211> 169  
 <212> PRT  
 <213> Pinus radiata

<400> 1144  
 Met Thr Arg Lys Cys Ser His Cys Gly Asn Asn Gly His Asn Ser Arg  
 1 5 10 15  
 Thr Cys Pro Asn Arg Gly Gly Val Lys Leu Phe Gly Val Arg Leu Thr  
 20 25 30  
 Asp Gly Pro Ile Arg Lys Ser Ala Ser Met Gly Asn Leu Met Met Met  
 35 40 45  
 Ser Asn Pro Ser Ser Pro Ala Asp Pro Ser Glu Pro Ala Ser Ala Ala  
 50 55 60  
 Ala Ala Ala Ala Ala Ala Ala Ser Gly Tyr Leu Ser Asp Gly Leu  
 65 70 75 80  
 Val Glu Ala Ser Thr Ser Ser Asn Ser Arg Glu Arg Lys Lys Gly Val  
 85 90 95  
 Pro Trp Thr Glu Glu Glu His Arg Met Phe Leu Leu Gly Leu Gln Lys  
 100 105 110

Leu Gly Lys Gly Asp Trp Arg Gly Ile Ala Arg Asn Phe Val Ile Thr  
           115                          120                          125  
 Arg Thr Pro Thr Gln Val Ala Ser His Ala Gln Lys Tyr Phe Ile Arg  
           130                          135                          140  
 Gln Ser Asn Met Thr Arg Lys Lys Arg Arg Ser Ser Leu Phe Asp Met  
 145                          150                          155                          160  
 Thr Pro Val Ser Phe Phe Phe Leu Ser  
                           165

<210> 1145  
 <211> 103  
 <212> PRT  
 <213> Pinus radiata

<400> 1145  
 Val Ser Ser Arg His Glu Phe Ala Val Ser Gln Met Ala Tyr Leu Gln  
   1                          5                          10                          15  
 Ala Leu Arg Asn Ala Gly Ala Thr Leu Arg Gln Phe Ala Glu Leu Glu  
           20                          25                          30  
 Ser Met Glu Leu Gln Lys Thr Ser Pro Tyr Pro His Leu Arg His Tyr  
           35                          40                          45  
 Arg Val Thr Leu Pro Pro Ser Pro Pro Pro Leu Pro Pro Pro Pro Pro  
           50                          55                          60  
 Pro Pro Pro Pro Leu Ser Leu Thr Pro Ser Pro Ser Tyr Gly Ser Ala  
 65                          70                          75                          80  
 Thr Phe Pro Ser Ser Ile Pro Val Asn Arg Ser Ile Tyr Arg Cys Pro  
                           85                          90                          95  
 Tyr Gln Gln Cys Ser Pro Ser  
                           100

<210> 1146  
 <211> 153  
 <212> PRT  
 <213> Pinus radiata

<400> 1146  
 Gln Leu Pro Asp Glu Ala Ile Ala Leu Ala Ala Ala Ser His Ile Glu  
   1                          5                          10                          15  
 Arg Glu Leu Gln Ile Thr Ser Trp Asn Leu Ser Cys Asn Phe Val Ala  
           20                          25                          30  
 Ser Thr Leu Gln Gly Arg Glu Cys Ile Glu Arg Leu Glu Ile Thr Gly  
           35                          40                          45  
 Ile Gly Asp Pro Ser Gly Arg Gly Leu Gly Phe Ser Tyr Leu Arg Val  
           50                          55                          60  
 Ala Pro Lys Pro Pro Ile Ser Ser Ala Leu Val Lys Lys Lys Ala Ala  
 65                          70                          75                          80  
 Ala Ala Arg Gly Gly Ser Ala Val Thr Gly Thr Asp Ala Asp Leu Arg  
                           85                          90                          95  
 Arg Leu Ser Met Asp Ala Ala Arg Glu Val Leu Leu Lys Phe Asn Val  
           100                          105                          110  
 Asp Glu Glu Gln Ile Glu Lys Met Thr Arg Trp His Arg Ile Ala Met  
           115                          120                          125  
 Val Arg Lys Leu Ser Ser Glu Gln Ala Ala Ser Gly Val Lys Val Asp  
           130                          135                          140  
 Ala Thr Ala Leu Asn Lys Phe Ala Arg  
 145                          150

<210> 1147  
 <211> 73  
 <212> PRT  
 <213> Pinus radiata

&lt;400&gt; 1147

Met Lys Ser Pro Ser Thr Ser Cys Leu Ser His Pro Val Glu Gly Glu  
 1 5 10 15  
 Gln Lys Ser Ile Asn Ser Glu Leu Trp His Ala Cys Ala Gly Pro Leu  
 20 25 30  
 Val Ser Leu Pro Ser Val Gly Ser Val Val Tyr Tyr Phe Pro Gln Gly  
 35 40 45  
 His Ser Glu Gln Val Ala Ala Ser Thr Gln Lys Val Ala Asp Thr His  
 50 55 60  
 Ile Pro Asn Tyr Pro Asn Leu Pro Tyr  
 65 70

&lt;210&gt; 1148

&lt;211&gt; 213

&lt;212&gt; PRT

&lt;213&gt; Pinus radiata

&lt;400&gt; 1148

Leu Lys Val Gln Trp Asp Glu Ile Ser Ala Ile Ala Arg Pro Glu Arg  
 1 5 10 15  
 Val Ser Pro Trp Lys Leu Glu Pro Ser Leu Thr Pro Val Ala Val Asn  
 20 25 30  
 Pro Leu Pro Val Ala Arg Gly Lys Arg Pro Arg Pro Asn Ile Leu Pro  
 35 40 45  
 Ser Ser Ser Asp Leu Ser Val His Asp Lys Ala Pro Val Asp Ser Thr  
 50 55 60  
 Gln Val His Arg Phe Pro Arg Val Leu Gln Gly Gln Glu Val Met Thr  
 65 70 75 80  
 Leu Gly Gly Ser Leu Gly Asp Gly Glu Leu Glu Ser Gly Gln Lys Met  
 85 90 95  
 Val Ala Trp Gly Gly Ser Lys Leu Asp Asp Val Lys Ala Glu Gly Met  
 100 105 110  
 Gly Cys Gln Arg Arg Leu Val Ser Glu Asn Trp Met Pro Pro Leu Arg  
 115 120 125  
 His Asp Ser Leu Tyr Ser Asp Thr Phe Ser Ser Phe Gln Pro Val Gly  
 130 135 140  
 Glu Val Gln Glu Phe Arg Gly Ser Leu Thr Asn Ser Ile Leu Glu Asp  
 145 150 155 160  
 Gly Gln Gln Pro Lys Leu Ser Arg Lys Gln Phe Gln Asp Gln Glu Gly  
 165 170 175  
 Lys Ile Val Asp Gly Ser Gly Leu Trp Ser Met Ser Phe Pro Asn Ser  
 180 185 190  
 Leu Gln Leu Cys Glu Ser Asn Arg Lys Met Ser Ala Thr Ser Ala Ala  
 195 200 205  
 Gln Ser His Lys Gln  
 210

&lt;210&gt; 1149

&lt;211&gt; 217

&lt;212&gt; PRT

&lt;213&gt; Pinus radiata

&lt;400&gt; 1149

Glu Leu Thr Ser Asp Ser His Arg Gln Ala Thr Leu Gln Leu Glu Ala  
 1 5 10 15  
 Glu Val Thr Ala Trp His Ile Ser Phe Cys Ser Leu Ile Lys Ser Gln  
 20 25 30  
 Gln Asp Tyr Ile Cys Ala Leu Tyr Glu Trp Ala Arg Leu Ser Leu Val  
 35 40 45  
 Gln Leu Gly Asn Glu Ala Gln Trp Glu Arg Gly Asn Arg Pro Pro Ile



50					55					60						
Tyr	Thr	Leu	Cys	Asp	Val	Trp	Gln	Gln	Val	Leu	Lys	Arg	Leu	Pro	Asp	
65					70					75					80	
Lys	Val	Ala	Ser	Glu	Ser	Ile	Lys	Ser	Phe	Ile	Ser	Val	Val	His	Ala	
				85					90					95		
Ile	Val	Met	Gln	Ala	Asp	Glu	Gln	Lys	Arg	Lys	Lys	Lys	Ala	Glu		
			100				105					110				
Asn	Ile	Ser	Arg	Glu	Leu	Gln	Lys	Lys	Met	Ile	Ala	Leu	Arg	Asn	Ile	
		115					120					125				
Glu	Lys	Lys	Tyr	Tyr	Ser	Ser	Tyr	Ser	Ile	Pro	Ala	Arg	Ala	Asp	Ala	
	130					135					140					
Thr	Thr	Glu	Ser	Gln	Phe	Glu	Leu	Gly	His	Thr	Asp	Pro	Leu	Ala	Glu	
145				150					155						160	
Lys	Arg	Ala	Glu	Ile	Glu	Ile	Tyr	Lys	Arg	Arg	Leu	Glu	Asp	Glu	Lys	
			165						170					175		
Ala	Asn	Tyr	Ser	Lys	Ser	Ala	Arg	Gly	Thr	Arg	Glu	Met	Thr	Leu	Asn	
			180					185				190				
Asn	Ile	Gln	Thr	Gly	Leu	Pro	Gly	Leu	Phe	Gln	Ala	Leu	Ser	Ser	Phe	
		195					200					205				
Ser	Ser	Val	Cys	Ala	Ser	Ser	Phe	Glu								
	210					215										

<210> 1150  
 <211> 33  
 <212> PRT  
 <213> Pinus radiata

<400> 1150																
Met	Ala	Met	Gly	Glu	Ala	Glu	Arg	Ile	Thr	Gly	Pro	Trp	Ser	Pro	Glu	
1			5					10					15			
Glu	Asp	Thr	Ser	Leu	His	Lys	Leu	Val	Glu	Lys	Ser	Gly	Pro	Arg	Asn	
			20				25						30			

Trp

<210> 1151  
 <211> 127  
 <212> PRT  
 <213> Pinus radiata

<400> 1151																
Trp	Arg	Pro	Ala	Lys	Phe	Ala	Arg	Asn	Leu	Leu	Pro	Asn	Tyr	Phe	Lys	
1			5					10				15				
Pro	Asn	Asn	Phe	Ser	Ser	Phe	Gly	Arg	Gln	Leu	Asn	Thr	Tyr	Gly	Phe	
		20					25					30				
Arg	Lys	Ile	Val	Pro	Asp	Arg	Trp	Glu	Phe	Ser	Asn	Glu	Phe	Phe	Arg	
		35					40				45					
Lys	Gly	Glu	Lys	Gln	Leu	Leu	Ser	Glu	Ile	His	Arg	Arg	Lys	Gly	Leu	
	50				55				60							
Ile	Gln	Pro	Pro	Pro	Pro	Pro	Glu	Asn	Arg	Ser	Ile	Ser	Pro	Ser	Asn	
65				70				75						80		
Ser	Gly	Asp	Glu	Gln	Thr	Trp	Ser	Ser	Thr	Ser	Ser	Pro	Asn	Ser	Ser	
			85					90					95			
Thr	Gly	Val	Asp	Ala	Leu	Ser	His	Lys	Asn	Ala	Ile	Glu	Glu	Asn	Glu	
			100					105					110			
Lys	Leu	Arg	Lys	Glu	Asn	Leu	Leu	Val	Ser	Glu	Leu	Thr	Gln			
		115					120					125				

<210> 1152  
 <211> 104  
 <212> PRT

&lt;213&gt; Pinus radiata

&lt;400&gt; 1152

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Pro His Gly Leu Gln His His Ser Ser Asp Asp Ala Asn Gly Asp Gly
 1          5          10          15
Asp Lys Arg Ile Gly Val Glu Thr Gly Ser Ser Val Cys Pro Glu Leu
 20          25          30
Trp His Ala Cys Ala Gly Pro Leu Ile Ser Leu Pro Pro Lys Gly Ser
 35          40          45
Arg Val Val Tyr Phe Pro Gln Gly His Leu Glu Gln Ile Ala Asp Asn
 50          55          60
Glu Leu His Arg Gly Gly Arg Gly Ser Phe Leu Asn Ile Asn His Ala
 65          70          75          80
Ala Ala Pro Met Ala Glu Glu Ala Ser Ser Ala Ala Ala Leu Asn Ile
 85          90          95
Pro Pro Ser Phe Ile Ser Gln Pro
100

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&lt;210&gt; 1153

&lt;211&gt; 146

&lt;212&gt; PRT

&lt;213&gt; Pinus radiata

&lt;400&gt; 1153

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Glu Thr Leu Thr Leu Leu Lys Ile Arg Ser Glu Met Asp Ser Lys Phe
 1          5          10          15
Arg Glu Ala Thr His Lys Gly Pro Leu Trp Asp Glu Val Ser Arg Ala
 20          25          30
Leu Ala Glu His Gly Tyr Gln Arg Ser Ser Lys Lys Cys Arg Glu Lys
 35          40          45
Phe Glu Asn Leu Tyr Lys Tyr Tyr Lys Lys Thr Lys Glu Gly Lys Ala
 50          55          60
Gly Arg Gln Asp Gly Lys His Tyr Arg Phe Phe Ser Gln Leu Glu Ala
 65          70          75          80
Leu Tyr Gly Gly Thr Thr Ile Asp Ala Ala Asp Ser Cys Phe Gly Val
 85          90          95
Thr Thr Arg Thr Asn Leu Thr Glu Ser Pro Gly Leu Asp Phe Asn Gly
100          105          110
Asp Gly Ala Ser Gln Lys Tyr Ala Asp Thr His His Asn Ser Glu Gly
115          120          125
Phe Ser Leu Ser Ser Asp Ser Ser Ser Asp Asp Glu Tyr Ser His Asp
130          135          140
Ile Gln
145

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&lt;210&gt; 1154

&lt;211&gt; 105

&lt;212&gt; PRT

&lt;213&gt; Pinus radiata

&lt;400&gt; 1154

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Ile Phe Tyr Arg Leu His Cys Asn Leu Gly Glu Lys Ser Asn Lys Ile
 1          5          10          15
Tyr Ile Cys Leu Phe Thr Met Glu Leu Ala Asp Glu His Ser Ile Leu
 20          25          30
Arg Tyr Lys Lys Pro Lys Leu Ser Lys Asn Val Val Ser Glu Arg Arg
 35          40          45
Arg Arg Gln Lys Met Asn Lys Leu Leu Tyr Thr Leu Arg Ala Leu Val
 50          55          60
Pro Asn Ile Ser Lys Met Asp Lys Ala Ser Ile Leu Ala Asp Ala Ile
 65          70          75          80

```

Glu Tyr Val Glu Lys Leu Lys Gln Gln Val Glu Arg Ala Glu Ser Asp  
                     85                    90                    95  
 Val Gln Ser Thr Asn Val Ser Ala Leu  
                     100                    105

<210> 1155  
 <211> 83  
 <212> PRT  
 <213> Pinus radiata

<400> 1155  
 Arg Glu Phe Asn Ile Asn Ala Asp Val Tyr Ala Gln Asp Ser Ile Glu  
   1                    5                    10                    15  
 Leu Leu Lys Gln Ser Gly Ile Asp Phe Glu Lys Asn Glu Glu Lys Gly  
                     20                    25                    30  
 Ile Asp Ser His Arg Phe Gly Glu Leu Leu Met Ser Ser Gly Val Val  
                     35                    40                    45  
 Leu Asn Glu Asn Val Asn Trp Ile Thr Phe His Ser Gly Tyr Asp Phe  
                     50                    55                    60  
 Gly Tyr Leu Leu Lys Leu Leu Thr Cys Gln Asn Leu Pro Pro Glu Glu  
  65                    70                    75                    80  
 Ser Asp Phe

<210> 1156  
 <211> 170  
 <212> PRT  
 <213> Pinus radiata

<400> 1156  
 Met Ala Asn Arg Ser Leu Trp Gly Gly Ser Asp Phe Asp Tyr Glu Asn  
   1                    5                    10                    15  
 Glu Ala Asp Thr Arg Lys Gly Pro Trp Thr Val Glu Glu Asp Met Gln  
                     20                    25                    30  
 Leu Gly Ile Val Asn Leu His Gly Glu Gly Arg Trp Asn Phe Leu Ala  
                     35                    40                    45  
 Arg Ala Ser Gly Leu Gln Arg Thr Gly Lys Ser Cys Arg Leu Arg Trp  
                     50                    55                    60  
 Val Asn Tyr Leu Arg Pro Asp Leu Lys Arg Ser Lys Ile Thr Pro Glu  
  65                    70                    75                    80  
 Glu Glu Arg Leu Ile Ile Glu Leu His Arg Arg Trp Gly Asn Arg Trp  
                     85                    90                    95  
 Ser Arg Ile Ala Gln Ser Leu Pro Gly Arg Thr Asp Asn Glu Ile Lys  
                     100                    105                    110  
 Asn Phe Trp Arg Thr Arg Met Lys Gly Lys Leu Asn Ser Glu Thr Gln  
                     115                    120                    125  
 Lys Asp Ile Ala Gly Val Asp Ala Asp Asp Gly Val Gln Phe Glu Ser  
                     130                    135                    140  
 Glu Leu Gly Ser Cys Arg Leu Pro Val Ile Ser Ser His Ala Leu Pro  
  145                    150                    155                    160  
 Glu Val Asp Val Ala Glu Pro Ser Ser Thr  
                     165                    170

<210> 1157  
 <211> 119  
 <212> PRT  
 <213> Pinus radiata

<400> 1157  
 Gly Thr Val Gly Arg Lys Arg Arg Arg Ile His Arg Ser Ser Ile Gly  
   1                    5                    10                    15

Val Thr Gly Gly Arg Gly Leu Arg His Phe Ser Met Lys Val Cys Lys  
 20 25 30  
 Lys Val Glu Ser Lys Gly Trp Thr Thr Tyr Asn Glu Val Ala Ser Glu  
 35 40 45  
 Leu Val Ala Glu Phe Val Asn Pro Asn Ser Thr His Leu Ser Gln Asp  
 50 55 60  
 Gln Gln Gln Phe Asp Glu Lys Asn Ile Arg Arg Arg Val Tyr Asp Ala  
 65 70 75 80  
 Leu Asn Val Leu Met Ala Met Asp Ile Ile Ser Lys Glu Lys Lys Glu  
 85 90 95  
 Ile Arg Trp Lys Gly Leu Pro Thr Thr Asn Leu Ser Asp Ile Glu Arg  
 100 105 110  
 Leu Lys Thr Glu Arg Lys Arg  
 115

<210> 1158  
 <211> 97  
 <212> PRT  
 <213> Pinus radiata

<400> 1158  
 Cys Pro Arg Ala Phe Ala Arg Ala Tyr Asn Leu Lys Thr His Met Ala  
 1 5 10 15  
 Thr His Asp Pro Asn Arg Leu Lys Pro His Val Cys Pro His Arg Ser  
 20 25 30  
 Cys Ala Arg Ser Phe Ser Arg Lys His Asp Leu Gly Arg His Leu Val  
 35 40 45  
 Ser Ile His Arg Asp Asp Ser Val Val Ser Thr Pro Ser Ala Ser Met  
 50 55 60  
 Lys Ser Ile Gly Val Asp Ser Gly Arg Arg Ser Trp Cys Asp Asn Cys  
 65 70 75 80  
 Gly Lys Gly Thr Ile Gly Ala Ser Cys Gln Cys Ser Cys Ala Asp Ile  
 85 90 95  
 Lys

<210> 1159  
 <211> 162  
 <212> PRT  
 <213> Pinus radiata

<400> 1159  
 His Ala Pro Ile Phe Cys Arg Val Ala Arg Asn Phe Gln Leu Arg Val  
 1 5 10 15  
 Ile Leu Lys Glu Asn Arg Arg Arg Glu Thr Phe Asp Gly Phe Leu Arg  
 20 25 30  
 Glu Asp His Glu Lys Val Ser Gln Leu Val Thr Gln His Tyr Lys Val  
 35 40 45  
 Gln Leu Glu Thr Lys Glu Ile Ser Val Lys Gly Trp Asn Trp Gly Ser  
 50 55 60  
 Thr Asp Val Gln Gly Asn Asp Leu Ala Phe Val Val Ala Asn Arg Thr  
 65 70 75 80  
 Ala Phe Glu Val Pro Leu Arg Ser Ile Thr Asn Ser Asn Ile Ala Gly  
 85 90 95  
 Arg Thr Glu Val Ser Leu Glu Phe Ser Thr Ala Pro Ala Pro Ser Ala  
 100 105 110  
 Ser Lys Ser Lys Lys Gly Arg Pro Asp Glu Leu Thr Glu Ile Arg Phe  
 115 120 125  
 Tyr Val Pro Gly Thr His Thr Lys Asp Asp Asp Asp Glu Ala Asp Ile  
 130 135 140  
 Thr Lys Asp Asp Glu Glu Val Ser Ala Ala Gln Ala Phe His Asp Met

145  
Ile Lys

150

155

160

<210> 1160  
<211> 163  
<212> PRT  
<213> Pinus radiata

<400> 1160  
Gly Ser Gly Gly Val Lys Met Glu Asp His Ser Pro Val Ile Ile Asn  
1 5 10 15  
Ser Gln Ser Gly Tyr Cys Gln Ser Gln Gln Ser Ser Gln Met Pro Leu  
20 25 30  
Ala Gly Tyr Met Ser Pro His Gly Ile Pro Ile Gln His Thr Asp Asp  
35 40 45  
Ala Ala Ser Lys Glu Thr Gln Tyr Leu Arg Arg Arg Cys Phe Asn Cys  
50 55 60  
His Thr Thr Glu Pro Pro Ser Trp Arg Arg Ser Thr Leu Thr Pro Gly  
65 70 75 80  
Lys Ile Val Cys Asn Lys Cys Gly Leu Tyr Glu Arg Thr His Leu Arg  
85 90 95  
Pro Arg Pro Leu Arg Phe Asp Glu Leu Arg Ala Gly Asn Lys Ser Arg  
100 105 110  
Lys Gln Thr Lys Ser Ser Pro Lys Gly Ala Lys Val Ile Pro Pro Gly  
115 120 125  
Pro Leu Pro Ile Lys Lys Glu Pro Ala Glu Met Glu Ala Ile Ser Arg  
130 135 140  
Arg Met Ser Val Ser Ser Ser Ser Ala Gln Ser Gly Gly Gly Gly  
145 150 155 160  
Ser Ser Asp

<210> 1161  
<211> 148  
<212> PRT  
<213> Pinus radiata

<400> 1161  
Arg Asn Leu Leu Gly Ala Arg Ala Gln Pro Met Lys Leu Ser Ala Lys  
1 5 10 15  
Asn Asp Ser Lys Leu Gly Ile Ala Arg Pro Ala Lys Leu Tyr Arg Gly  
20 25 30  
Val Arg Gln Arg His Trp Gly Lys Trp Val Ala Glu Ile Arg Leu Pro  
35 40 45  
Arg Asn Arg Thr Arg Leu Trp Leu Gly Thr Phe Asp Thr Ala Glu Glu  
50 55 60  
Ala Ala Phe Ala Tyr Asp Thr Ala Ala Tyr Gln Leu Arg Gly Glu Tyr  
65 70 75 80  
Ala Arg Leu Asn Phe Pro Asp Leu Arg Tyr Leu Leu Leu Ser Asn Ser  
85 90 95  
Asp Asn Gly Ser His Asn Val Leu Ser Pro Pro Gly Asn Ala Leu Ser  
100 105 110  
Val Leu Lys Ser Ser Val Asp Ala Lys Leu Gln Ala Ile Cys Gln Arg  
115 120 125  
Leu Ser Gln Glu Asn Ser Ser Glu Asn Arg Leu Met Ala His Ser Ala  
130 135 140  
Asn Asn Glu Ala  
145

<210> 1162

<211> 48  
 <212> PRT  
 <213> Pinus radiata

<400> 1162  
 Phe Leu Glu Ala Leu Glu Lys Arg Glu Glu Asp Arg Met Met Arg Glu  
 1 5 10 15  
 Glu Ala Trp Lys Arg Gln Glu Met Ala Arg Leu Asn Lys Asp Gln Glu  
 20 25 30  
 Leu Arg Ser Gln Glu Arg Ser Met Ala Ala Ser Arg Asp Leu Ala Leu  
 35 40 45

<210> 1163  
 <211> 255  
 <212> PRT  
 <213> Pinus radiata

<400> 1163  
 Val Ala Leu Ser Asn Asn Pro Leu Ile Phe Ser Ala Lys Val Glu Asn  
 1 5 10 15  
 Gly Thr Pro Ser Tyr Asp Gly Leu Lys His Ala Asn Thr Asn Pro Met  
 20 25 30  
 Pro Phe Ser Gly Leu Gly Asn Val Ser Met Gly Pro Leu Phe Tyr Gln  
 35 40 45  
 Ala Asn Pro Ile Gln Arg Val Lys Arg Val Arg Asp Thr Ser Phe Ile  
 50 55 60  
 Met Gly Pro Pro Ser Ser Pro Phe Gly Arg Met Gly Val Asn Gly His  
 65 70 75 80  
 Met Gly Met Asn Asp Val Ser Lys Ser Leu Gln Pro Gly Phe Lys Ala  
 85 90 95  
 Arg Val Pro Tyr Pro Leu Gln Ala Ala Arg Ser Asp Ser Phe Val Ala  
 100 105 110  
 Gln Gly Cys Phe Pro Tyr Asp Pro Asn Leu Ser Ser Thr Ser Asn Leu  
 115 120 125  
 Pro Leu Gly Gly Phe Ser Ser Gly Ser His Ala Val Met Asn Gly Thr  
 130 135 140  
 Phe Ser Ser Ser Arg Leu Phe Ser Gly Gln Lys Leu Glu Leu Pro Ser  
 145 150 155 160  
 Ser Gln Phe Ala Glu Ser Val Gln Thr Ala Gly Ser Ser Ile Asn Pro  
 165 170 175  
 Val Leu Asn Arg Ser Thr Pro Leu Leu Leu Pro Pro Val Pro Thr Gln  
 180 185 190  
 Thr Ile Asn Gln Val Asp Tyr Ser Phe Ser Thr Pro Lys Asn Ser Gly  
 195 200 205  
 Leu Leu Glu Ser Met Phe Gln Glu Ala Gln Thr Met Gly Gly Val Lys  
 210 215 220  
 Ala His Ser Ser Ser Asn Ser Ser Ile Asp Leu Gln Gly Gly Ser Lys  
 225 230 235 240  
 Ser Ser Ile Ser Asn Pro Leu Asn Asn Gly Phe Leu Cys Arg Ser  
 245 250 255

<210> 1164  
 <211> 147  
 <212> PRT  
 <213> Pinus radiata

<400> 1164  
 Ile Arg Met Glu Glu Pro Leu Gln Ile Ile Asn Ser Ser Pro Ile Gln  
 1 5 10 15  
 Gln Gln His Asp His Asp Asp Asp Asp His Gly His Gly His Glu Glu  
 20 25 30

Glu Val Ile Pro His Pro Leu Leu Pro Pro Pro Gly Asp Thr Cys Ile  
           35                          40          45  
 Val Pro Tyr Ile Met Pro Val Ser Thr Ser Thr Ala Glu Lys His Pro  
       50                          55          60  
 Pro Gln Pro Thr Asn Ile Ala Phe Asn Gly Pro Glu Thr Glu Glu Asp  
       65                          70          75          80  
 Asp Lys Lys Arg Asp Arg Glu His Lys Lys Arg Ser Lys Asn Trp Thr  
                           85          90          95  
 Arg Val Glu Thr Leu Lys Leu Ile Lys Leu Arg Thr Glu Phe Glu Pro  
                           100          105          110  
 Arg Phe Ser Arg Ser Gly Arg Lys Thr Glu Leu Trp Asp Glu Ile Ala  
           115                          120          125  
 Glu Ser Leu Arg Lys Glu Gln Phe Phe Arg Asp Ala Gln Cys Arg  
       130                          135          140  
 Asp Lys Trp  
 145

<210> 1165  
 <211> 202  
 <212> PRT  
 <213> Pinus radiata

<400> 1165  
 Met Asp Gln Gln Gln Pro Thr Ile Pro Ala Leu Pro Gln Val Gly Tyr  
   1                          5          10          15  
 Gly Thr Asn Pro Tyr Ile Ala Pro Pro Ile Gly Gly Pro Pro His Pro  
           20                          25          30  
 Gln Leu Ala Ser Tyr His Gln Gln Leu Gln Ala Phe Trp Gly Asn Gln  
       35                          40          45  
 Met Arg Glu Val Glu Gln Ala Gln Asp Phe Lys Thr His Ser Leu Pro  
       50                          55          60  
 Leu Ala Arg Ile Lys Lys Ile Met Lys Ala Asp Glu Asp Val Lys Met  
       65                          70          75          80  
 Ile Ser Ala Glu Ala Pro Val Val Phe Ala Lys Ala Cys Glu Met Phe  
                           85          90          95  
 Ile Leu Glu Leu Thr Leu Arg Ser Trp Ile His Thr Glu Glu Asn Lys  
                           100          105          110  
 Arg Arg Thr Leu Gln Lys Asn Asp Ile Ala Ala Ala Ile Gly Arg Thr  
           115                          120          125  
 Asp Ile Phe Asp Phe Leu Val Asp Ile Val Pro Arg Asp Glu Phe Lys  
       130                          135          140  
 Asp Glu Gly Leu Val Ile Pro Arg Ala Ala Gly Ala Val Pro Phe Met  
       145                          150          155          160  
 Gly Pro Gly Asp Asn Val Pro Ser Tyr Tyr Val Ala Gln Gln Ala  
                           165          170          175  
 Pro Asn Val Ala Ala Tyr Ala Pro Pro Thr Gln Gln Met Arg Ser Lys  
                           180          185          190  
 Ala Pro Ala Pro Pro Pro His Gly Ser Ser  
       195                          200

<210> 1166  
 <211> 143  
 <212> PRT  
 <213> Pinus radiata

<400> 1166  
 Gln Gly Ser Leu Thr Leu Pro Arg Thr Leu Ser Arg Arg Thr Val Asp  
   1                          5          10          15  
 Asp Val Trp Arg Glu Ile His Lys Glu Asn Ile Asp Gly Asn Gly Asn  
           20                          25          30  
 Ala Pro Ala Asn Gln Ala Arg Gln Pro Thr Phe Gly Glu Met Thr Leu

		35					40					45			
Glu	Asp	Phe	Leu	Val	Lys	Ala	Gly	Val	Val	Arg	Glu	Asp	Ala	Glu	Gln
	50					55					60				
Gly	Asp	Gly	Gln	Ser	Phe	Gly	Ala	Phe	Arg	Asn	Ala	Leu	Asp	Gly	Glu
65					70					75					80
Phe	Val	Ala	Asn	Leu	Ala	Glu	Arg	Asn	Gly	Asp	Asn	Arg	Leu	Gly	Ile
			85						90					95	
Gly	Asn	Ser	Leu	Gly	Leu	Gly	Phe	Gly	Glu	Arg	Gly	His	Arg	Asn	Gly
			100					105					110		
Glu	Val	Gly	Ser	Asn	Lys	Ser	Gly	Ala	Gly	Gly	Val	Pro	Gly	Leu	Ser
		115					120					125			
Leu	Ser	Pro	Thr	Asn	Val	Phe	Leu	Ile	Met	Leu	Pro	Trp	Ile	Trp	
	130					135					140				

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<210> 1167
<211> 90
<212> PRT
<213> Pinus radiata
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<400> 1167															
Phe 1	Gln	Arg	Arg	Lys 5	Lys	Lys	Ser	Ile	Gly 10	Arg	Gly	Cys	Leu	Lys 15	Thr
Ser	Ile	Asn	Asp 20	Val	Glu	Gln	Leu	Lys 25	Ala	Glu	Lys	Leu	Leu 30	Leu	Lys
Ser	Arg	Ile 35	Glu	Lys	Lys	Ala	Ser 40	Tyr	Phe	His	Glu	Leu 45	Glu	Glu	Gln
Ile	Ile 50	Gly	Leu	Gln	Asn	Leu 55	Val	Lys	Arg	Asn	Glu 60	His	Arg	Tyr	Ser
Ser 65	Gly	Asn	Thr	Pro 70	Ser	Gly	Gly	Val	Ser	Leu 75	Pro	Phe	Ile	Leu 80	Val
Gln	Thr	His	Pro	Arg 85	Ala	Thr	Val	Glu	Ile 90						

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<210> 1168
<211> 105
<212> PRT
<213> Pinus radiata
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	<400>	1168														
Gly 1	Ile	Arg	Arg	Ala 5	Thr	Arg	Gln	Lys	Ser 10	Gly	Ile	Leu	Ser	Ser 15	Val	
Leu	Ser	Asn	Gln	Asn	Ala	His	Leu	Ser 25	Val	Leu	Ala	Ala	Ala	Ala 30	Ser	
Ala	Val	Ala	Thr	Lys	Ser	Met	Phe 40	His	Val	Phe	Tyr	Asn	Pro	Arg	Thr	
Ser	Pro	Ala	Glu	Phe	Ile	Ile 55	Pro	Tyr	Gln	Lys	Tyr 60	Val	Lys	Ser	Cys	
Lys 65	Gln	Pro	Leu	Ser	Ile 70	Gly	Met	Arg	Phe	Lys 75	Met	Arg	Phe	Glu	Thr 80	
Glu	Asp	Thr	Ala	Glu 85	Arg	Arg	Tyr	Thr	Gly 90	Met	Ile	Thr	Ala	Ile 95	Gly	
Asp	Ala	Asp	Pro	Ala 100	Arg	Trp	Pro	Gly 105								

```
<210> 1169
<211> 106
<212> PRT
<213> Pinus radiata
```

<400> 1169  
Gln Asp Thr His Ser Glu Pro Met Ala Met Glu Met Gly Leu Val Ile



```

      1           5           10           15
Asp Gly Asp Arg Phe Ser Ser Glu Gly Asp Gly Asp Ile Met Leu Asp
      20           25           30
Gly Glu Asp Leu Leu Pro Glu Ile Asn Asp Met Phe Trp Glu Gln Phe
      35           40           45
Leu Ala Glu Ser Ala Thr Ser Gly Gly Thr Glu Glu Ala Glu Ser Ala
      50           55           60
Ala Gln Glu Ser Leu Thr Lys Asp Gln Asp Glu Lys Pro Ser Glu Asn
      65           70           75           80
Gly Asn Trp Trp Lys Lys Asn Gln Asn Met Asp Asn Leu Thr Glu Gln
      85           90           95
Met Gly Gln Leu Ala Ser Glu Ser Asn Pro
      100           105

```

<210> 1170  
 <211> 144  
 <212> PRT  
 <213> Pinus radiata

```

      <400> 1170
Asp Gly Ala Val Arg Asp Ala Gly Arg Leu Val Pro Ala Pro Phe Leu
      1           5           10           15
Val Lys Met Tyr Arg Leu Val Asp Asp Pro Ser Thr Asn His Ile Val
      20           25           30
Ser Trp Gly Glu Asn Asn Asn Ser Phe Val Val Trp Arg Pro Lys Glu
      35           40           45
Phe Ser Ala Ser Val Leu Pro Cys Tyr Phe Asn His Ala Asn Phe Ser
      50           55           60
Ser Phe Val Arg Gln Leu Asn Asn Tyr Gly Phe Arg Lys Thr Phe Arg
      65           70           75           80
Gly Gln Cys Glu Phe Ser Asn Lys Leu Phe Glu Lys Gly Lys Gln Tyr
      85           90           95
Leu Leu Cys His Ile His Arg Arg Arg Ala Ser Asn Ser Ser Pro Met
      100           105           110
Pro Met Glu Tyr Gly Lys Ser Ser Leu Leu Phe Pro Ile Ile Leu Pro
      115           120           125
Thr Gln His Ser Asn Val Leu Ala Ala Pro Leu Pro Ser Ser Leu Ser
      130           135           140

```

<210> 1171  
 <211> 62  
 <212> PRT  
 <213> Pinus radiata

```

      <400> 1171
Lys Glu Arg Ile Leu Thr Glu Glu Asn Leu Phe Leu Arg Lys Lys Cys
      1           5           10           15
Gly Asp Glu His Val Asp Cys Ser Ala Phe Arg Thr Pro Pro Ala Gln
      20           25           30
Leu Arg Ser Ile Gln Asn Ile Asp Val Glu Thr Gln Leu Val Ile Arg
      35           40           45
Pro Pro Thr Val Gln Gln His Pro Asp Val Asp Ser Pro Arg
      50           55           60

```

<210> 1172  
 <211> 88  
 <212> PRT  
 <213> Pinus radiata

```

      <400> 1172
Asp Pro Asn Ala Pro Lys Lys Ala Met Thr Gly Phe Met Phe Phe Ser

```

```

      1           5           10           15
Gln Val Glu Arg Glu Asn Leu Lys Lys Ser Asp Pro Gly Met Ala Phe
      20           25           30
Thr Asp Val Gly Arg Thr Leu Gly Glu Arg Trp Lys Lys Met Ser Ala
      35           40           45
Glu Glu Lys Ala Pro Tyr Glu Ser Lys Ala Arg Ala Asp Lys Glu Arg
      50           55           60
Tyr Lys Glu Ala Met Ala Asp Tyr Lys Ser Gly Pro Thr Asn Val Asp
      65           70           75           80
Ser Gly Asn Glu Ser Asp Ser Glu
      85

```

```

<210> 1173
<211> 106
<212> PRT
<213> Pinus radiata

```

```

      <400> 1173
Leu Leu Phe Gly Val Asn Ile Asp Ser Ser Ser Leu Ile Val Pro Asn
      1           5           10           15
Thr Val Ser Asn Met Arg Ser Ile Gly Ser Ser Thr Asp Ala Val Met
      20           25           30
Gln Phe Gly Val Ser Asn Tyr Leu Asn Ala Pro Pro Cys Ala Ser Gly
      35           40           45
Ser Asn Ile Ser Leu Asn Ser Asp Ile Ser Ala Ser Ala Cys Leu Asp
      50           55           60
Glu Ser Gly Leu Leu Pro Pro Ala Glu Asn Leu Gly Gln Met Asn Ala
      65           70           75           80
Pro Thr Arg Thr Phe Ile Lys Val Tyr Lys Gln Gly Ser Val Gly Arg
      85           90           95
Ser Leu Asp Ile Ser Arg Phe Ser Ser Tyr
      100           105

```

```

<210> 1174
<211> 108
<212> PRT
<213> Pinus radiata

```

```

      <400> 1174
Met Ala Thr Thr Arg His Gln Arg Ser Pro Asp Ser Ser Pro Arg Ser
      1           5           10           15
Glu Asp Glu Ser Gly Ala His Thr Tyr Ser Asn Gln Asp Gly Ser Val
      20           25           30
Lys Glu Gln Asp Arg Phe Leu Pro Ile Ala Asn Val Ser Arg Ile Met
      35           40           45
Lys Lys Ala Leu Pro Ala Asn Ala Lys Ile Ser Lys Asp Ala Lys Glu
      50           55           60
Thr Val Gln Glu Cys Val Ser Glu Phe Ile Ser Phe Ile Thr Gly Glu
      65           70           75           80
Ala Ser Asp Lys Cys Gln Arg Glu Lys Lys Lys Thr Ile Asn Gly Asp
      85           90           95
Asp Leu Leu Trp Ala Met Gly Thr Leu Gly Phe Glu
      100           105

```

```

<210> 1175
<211> 137
<212> PRT
<213> Pinus radiata

```

```

      <400> 1175
Lys Ser Asp Tyr Arg Asp Ser Asp Asp Glu Gly Gly Gly Thr Val Arg

```

1				5					10					15			
Glu	Gly	Lys	Asp	Leu	Gln	Thr	Ser	Asn	Phe	Ile	Asp	Tyr	Phe	Gly	Gln		
			20					25					30				
Ser	Asn	His	Thr	Glu	Glu	Ala	Glu	Asn	Glu	His	Asp	Ala	Ser	Val	Asp		
		35					40					45					
Thr	Lys	Gly	Pro	Leu	Glu	Ser	Ser	Asn	Glu	Val	Gly	His	Pro	Thr	Thr		
	50					55					60						
Tyr	Pro	Glu	Ser	Ser	Ser	Leu	Ser	Ala	Gln	Gly	Ser	Glu	Pro	Arg	Val		
65				70					75						80		
Phe	Ser	Cys	Asn	Tyr	Cys	Gln	Arg	Lys	Phe	Tyr	Ser	Ser	Gln	Ala	Leu		
			85						90					95			
Gly	Gly	His	Gln	Asn	Ala	His	Lys	Arg	Glu	Arg	Thr	Leu	Ala	Lys	Arg		
			100					105						110			
Gly	Gln	Arg	Ile	Gly	Ala	Phe	Gln	His	Arg	Tyr	Ile	Ser	Met	Ala	Ser		
		115					120					125					
Leu	Pro	Leu	His	Gly	Ser	Thr	Glu	Ser									
	130					135											

&lt;210&gt; 1176

&lt;211&gt; 206

&lt;212&gt; PRT

&lt;213&gt; Pinus radiata

&lt;400&gt; 1176

Ser	Arg	Gly	Lys	Ala	Leu	Lys	Leu	Phe	Gly	Phe	Glu	Phe	Arg	Gly	Ser		
1				5				10					15				
Glu	Gly	Gly	Ser	Phe	Glu	Gly	Thr	Asn	Gly	Ser	Asp	Gln	Pro	Gln	Asp		
			20					25				30					
Gly	Thr	Asn	Ile	Leu	Thr	Ala	Gly	Glu	Ala	Ser	Thr	Glu	Pro	Val	Glu		
		35				40					45						
Glu	Glu	Leu	Val	Ile	Glu	Ala	Lys	Asn	Gly	Asp	Ser	Gly	Lys	Leu	Glu		
	50				55					60							
Asp	Val	Gly	Ser	Pro	Val	Glu	Ala	Gly	Glu	Ser	Gly	Ser	Thr	Ser	Asn		
65				70					75						80		
Cys	Leu	Gly	Ser	Ser	Ala	Gln	Glu	Asn	Arg	Lys	Tyr	Glu	Cys	Gln	Tyr		
			85					90						95			
Cys	Cys	Arg	Glu	Phe	Ala	Asn	Ser	Gln	Ala	Leu	Gly	Gly	His	Gln	Asn		
			100					105						110			
Ala	His	Lys	Lys	Glu	Arg	Gln	Gln	Ala	Lys	Arg	Ala	His	Leu	Leu	Ala		
		115				120						125					
Thr	Arg	Ser	Ala	Ala	Ala	Ser	Ala	Asn	Arg	Ser	Gly	Ala	Thr	Ala	Trp		
	130					135					140						
Cys	Gly	Asn	Ile	Asn	Gly	Asn	Leu	Tyr	His	Arg	Asn	Phe	Leu	Phe	Asn		
145				150					155						160		
Asn	Ser	Tyr	Phe	Thr	Arg	Met	Gln	Val	Phe	Gln	Glu	Asp	Phe	Pro	Thr		
			165					170						175			
Phe	Gln	Thr	Pro	Gln	Ala	Val	Ala	Ala	Pro	Ser	Ile	Pro	His	Tyr	Ile		
		180					185						190				
Phe	Ser	Tyr	Gln	Gln	Gln	Gln	Gln	Ala	Pro	Val	Gln	Ser	Arg				
	195					200					205						

&lt;210&gt; 1177

&lt;211&gt; 116

&lt;212&gt; PRT

&lt;213&gt; Pinus radiata

&lt;400&gt; 1177

Val	Pro	Glu	Asn	Ser	Lys	Gln	Ile	Ile	Asn	His	Gly	Leu	Ile	Leu	Pro		
1				5				10					15				
Glu	Met	Gly	Ser	Val	Asp	Ser	Gly	Arg	Glu	Gly	Thr	Arg	Ala	Ile	Leu		
			20					25					30				

Ser Asp Asp Cys Val Lys Phe Glu Cys Arg Tyr Cys Cys Arg Val Phe  
 35 40 45  
 Pro Thr Ser Gln Ala Leu Gly Gly His Gln Asn Ala His Lys Arg Glu  
 50 55 60  
 Arg Arg Arg Ala Met Thr Arg Phe Gln Arg Ser Pro Ser Asp Ser Ser  
 65 70 75 80  
 Asn Tyr Ser Gly Lys Gln Asn Ser Ile Asp Leu Phe Ser Arg Glu Arg  
 85 90 95  
 Val Pro Gly Ser Ser Leu Leu Ser Pro His Gly Thr Arg Asp His Val  
 100 105 110  
 Val Cys Ser Asp  
 115

<210> 1178  
 <211> 122  
 <212> PRT  
 <213> Pinus radiata

<400> 1178  
 Lys Lys Ala Ser Glu Trp Gly Glu Ser Val Val Ser Thr Ser Glu Asn  
 1 5 10 15  
 Ser Asn Asp Leu Asp Pro Pro Thr Tyr Ser Glu Thr Ser Ser Pro Ala  
 20 25 30  
 Gln Gly Ser Asp Pro Arg Val Phe Pro Cys Asn Phe Cys Gln Ser Lys  
 35 40 45  
 Phe Tyr Ser Ser Gln Ala Leu Gly Gly His Gln Asn Ala His Lys Arg  
 50 55 60  
 Glu Arg Thr Leu Ala Arg Arg Ala Gln Arg Met Gly Ser Phe Ala Gln  
 65 70 75 80  
 Arg Tyr Ser Ser Met Ala Ser Leu Pro Leu His Gly Ser Ser Glu Thr  
 85 90 95  
 Ser Trp Thr Pro Ser Arg Phe Leu Gly Ile Lys Ala His Ser Leu Ile  
 100 105 110  
 His Lys Pro Phe Pro Glu Gly Asp Asn Leu  
 115 120

<210> 1179  
 <211> 113  
 <212> PRT  
 <213> Pinus radiata

<400> 1179  
 Met Thr Gln Ala Thr Asn Tyr Thr Ala Gly Thr Ile Arg Asp Asp Gln  
 1 5 10 15  
 Glu Glu Gln Cys Val Arg Arg Gly Pro Trp Thr Val Asp Glu Asp Met  
 20 25 30  
 Ser Leu Ile Arg Cys Val Thr Thr Arg Gly Glu Gly Arg Trp Asn Thr  
 35 40 45  
 Val Ala Lys Phe Ala Gly Leu Lys Arg Thr Gly Lys Ser Cys Arg Leu  
 50 55 60  
 Arg Trp Leu Asn Tyr Leu Arg Pro Asp Val Lys Arg Gly Asn Ile Thr  
 65 70 75 80  
 Pro Glu Glu Gln Leu Leu Ile Leu Glu Leu His Arg Leu Trp Gly Asn  
 85 90 95  
 Arg Trp Ser Lys Ile Ala Arg Gln Leu Pro Gly Arg Thr Asp Asn Glu  
 100 105 110  
 Ile

<210> 1180  
 <211> 76

&lt;212&gt; PRT

&lt;213&gt; Pinus radiata

&lt;400&gt; 1180

```

Met Arg Arg Pro Gln Arg Lys Lys Lys Thr Asp Ala Glu Asp Asp Phe
 1          5          10          15
Asp Glu Cys Tyr Tyr Thr His Met Cys Lys Ile Cys Lys Lys Phe
      20          25          30
Val Ser Gly Arg Ala Phe Gly Gly His Met Arg Ile His Gly Pro Val
      35          40          45
Ala Thr Ala Ala Ala Ala Ala Glu Ser Asn Gly Lys Asn Leu Glu
 50          55          60
Pro Gln Arg Lys Arg Ser Arg Ala Glu Glu Ile Arg
65          70          75

```

&lt;210&gt; 1181

&lt;211&gt; 130

&lt;212&gt; PRT

&lt;213&gt; Pinus radiata

&lt;400&gt; 1181

```

Val Gly Cys Lys Gly Ser Asp Ala Phe Glu Glu Ser Leu Lys His Phe
 1          5          10          15
Cys Arg Val Cys Lys Arg Arg Phe Ala Cys Gly Arg Ala Leu Gly Gly
      20          25          30
His Met Arg Val His Gly Ala Glu Leu Gly Ala Ile Lys Gly Gly Gly
      35          40          45
Leu Glu Glu Gln Phe Glu Lys Gly Arg Val Lys Glu Pro Ser Arg Ser
 50          55          60
Cys Gly Asp Ser Val Lys Glu Gly Val Gln Asp Glu Val Glu Gly Leu
65          70          75          80
Asn Ser Met Tyr Thr Leu Arg Arg Asn Pro Lys Arg Ser Trp Arg Phe
      85          90          95
Ala Asp Gln Asp Tyr Ser Phe Ala Phe Gly Gly Val Asp Gly Ser Gly
      100          105          110
Ala Lys Arg Phe Gly Ser Thr Phe Leu Arg Asp Ser Arg Val Cys Glu
      115          120          125
Glu Cys
130

```

&lt;210&gt; 1182

&lt;211&gt; 86

&lt;212&gt; PRT

&lt;213&gt; Pinus radiata

&lt;400&gt; 1182

```

Arg Asn Tyr Leu Gly Glu Tyr Thr Gly Glu Leu Ile Ser His Arg Glu
 1          5          10          15
Ala Asp Lys Arg Gly Lys Ile Tyr Asp Arg Glu Asp Ser Ser Phe Leu
      20          25          30
Phe Asn Leu Asn Asp Gln Tyr Val Leu Asp Ala Tyr Arg Lys Gly Asp
      35          40          45
Lys Leu Lys Phe Ala Asn His Ser Pro Thr Pro Asn Cys Tyr Ala Lys
 50          55          60
Val Ile Met Val Ala Gly Asp His Arg Val Gly Ile Phe Ala Lys Glu
65          70          75          80
Arg Ile Ala Ala Gly Glu
      85

```

&lt;210&gt; 1183

&lt;211&gt; 462

&lt;212&gt; DNA

&lt;213&gt; Eucalyptus grandis

&lt;400&gt; 1183

acaaacaaac	aaacaagacg	gaacgagatg	aagacggttc	agtcgaagaa	gttcaggggc	60
gtcagacagc	gtcactgggg	ctcttgggtt	tccgaaattc	gccatcctct	gttgaagaga	120
aggggtgtgg	tgggcacgtt	cgagacggct	gaggaggcgg	cacgagccta	cgaccaggcc	180
gccatcttga	tgagtggccg	caatgcaaag	accaacttcc	cgacatctca	aaccacgaac	240
ggcgaccccg	ccgctgccaa	ttccttgtct	tcctcgaagc	acttgtcgga	gatcctccac	300
gcgaantcaa	ganatgcagc	aagacgccgt	cgccatccct	cacctgccta	aggctcgaca	360
ctgagaactc	ccacatcgga	gtctggcaga	agggtgccgg	ccagcgtcag	actcaactgg	420
gtatgaccgt	acagtcggaa	caaaaatccg	atccattggt	ag		462

&lt;210&gt; 1184

&lt;211&gt; 340

&lt;212&gt; DNA

&lt;213&gt; Eucalyptus grandis

&lt;400&gt; 1184

gactccccct	atccccctct	tttctccctc	tcaagaatca	agagattact	atggaaagcg	60
aacgctacga	tgagacgaca	gaggggcagc	gaatcaagag	aaggccgcac	cagcagcagc	120
agcagcagca	gcagcggcgg	cagaagcctt	acaggggtat	ccggatgagg	aagtggggca	180
agtgggtggc	cgagatcagg	gagcccaaca	agcgtccccg	catctggctc	ggctcctatg	240
ccacccccgt	ggccgcgcgc	cgcgccctacg	acaccgccgt	cttctacctc	cgcgggccct	300
ccgcccgcct	caacttcccc	gacctcatct	ggcgcgaggg			340

&lt;210&gt; 1185

&lt;211&gt; 190

&lt;212&gt; DNA

&lt;213&gt; Eucalyptus grandis

&lt;400&gt; 1185

cttgggggtg	acatggcgcg	acgtggcgga	ggaaggaggc	gaacggcggc	tccgaggcgt	60
ccgacgccgt	cttgccgcga	gctcatcatc	gccatcgtaa	caagggagtg	aggatgcgga	120
agtgggggaa	gtgggtggcg	gagatacggc	agcccaacag	ccgggaccgc	atctggctcg	180
gctcctacgc						190

&lt;210&gt; 1186

&lt;211&gt; 473

&lt;212&gt; DNA

&lt;213&gt; Eucalyptus grandis

&lt;400&gt; 1186

aacaaaggtn	tgtgtatgga	accattcttg	atagcattgc	aaaggttact	ggaattgtga	60
agtttgatct	gcatgctgag	ccagaggaag	gaaaaaagaa	gattgaggtc	ggaggaaatg	120
ttgcaggtgt	gtttgacctt	ggaccaggta	gaattnggtt	ctgaagctgt	ttttgtccct	180
cgagagcctg	gcatcacttc	tgaagaagat	gatgggtacc	tgatattctt	tgtccatgat	240
gaaagcacag	ggaagtcggc	agtaaatgta	attgatgcga	aaaacatgtc	atctgacatc	300
gttgctgtcg	ttgaattacc	ccataggggt	ccttatggct	tccatgcctt	cttcgtgact	360
gaggaacaac	ttcaggaact	ggctaagctg	taggtctcta	catgcacgaa	ttgttgggaa	420
tgcatatggt	gcgagggggg	gcatactctt	ggaaagctgc	tacagttgat	cta	473

&lt;210&gt; 1187

&lt;211&gt; 333

&lt;212&gt; DNA

&lt;213&gt; Eucalyptus grandis

&lt;400&gt; 1187

accagatcca	gatgcagagg	tcattgcact	atcgccaaag	acgctcatgg	cgacgaacag	60
gttcgtttgc	gagatatgca	acaaaggctt	ccagagggac	cagaacctgc	agctgcaccg	120
gagggggccac	aacctgccat	ggaagctccg	gcagaggagc	aaggagatcg	tcaagaagaa	180

ggtttatata	tgccctgaga	agacgtgcgt	gcaccacgac	ccttcaaggg	cacttggcga	240
cctcactggg	atcaagaagc	acttcagccg	gaagcatggc	gagaagaagt	ggaagtgtga	300
gaagtgcctg	aagaagtacg	cagtccagtc	aga			333

&lt;210&gt; 1188

&lt;211&gt; 420

&lt;212&gt; DNA

&lt;213&gt; Eucalyptus grandis

&lt;400&gt; 1188

taaaaacat	gcagtctctc	agccactgaa	catggcgctt	gaagctctca	actcgccac	60
cgccgcgcgc	cccttcggcc	acgacgagc	ggacggccac	ccgtgggcca	aacggaagcg	120
ctccaagcgc	ccccgcgcgc	accctcagga	ccagccctcc	gaggaggagt	acctggccct	180
ctgcctcctc	atgctcgccc	gccgcccgcg	ccgacccggc	agcagcgcca	ggctccacga	240
gtgctccatc	tgccacaagg	ccttccccac	cgccagggcc	ttgggcgggc	acaagcgggtg	300
ccactacgac	ggcggcagca	gtagcagcgc	cgcccgctgt	gcctcttctc	cagaagccgg	360
cggtcctagc	cacacgactg	tcagccaccg	cgagccgata	gacttgaact	tgccggcctt	420

&lt;210&gt; 1189

&lt;211&gt; 365

&lt;212&gt; DNA

&lt;213&gt; Eucalyptus grandis

&lt;400&gt; 1189

tgacgcccag	cgacgtgggg	aagctgaacc	ggctgggtgat	cccgaagcag	cacgcggaga	60
agcacttccc	gctgccgggc	gggcccggcg	cgacgatgaa	gggcgtactg	ctcaacttcg	120
aggacgtcgg	cggaagggtg	tggcggttcc	ggtattcgta	ctggaacagc	agccagagct	180
acgtgctcac	caagggttgg	agccggttcg	tgaaggagaa	gagcctgaag	gccggcgaca	240
ccgtntgctt	ccagcggctg	accgggcccg	acaagcagct	ntacatcgac	ttcaagccgc	300
ggggccagcc	gccggccggc	ccggccgcgc	cgccgcccgc	gcccgtacag	atgggtgaggc	360
tgttc						365

&lt;210&gt; 1190

&lt;211&gt; 434

&lt;212&gt; DNA

&lt;213&gt; Eucalyptus grandis

&lt;400&gt; 1190

atcacttcaa	caccatgacc	ttacaaaaac	aaagcaattg	ttagaaccat	ggttgctcaa	60
ctgaagaact	tcatgctgc	gctacaagaa	ttggaggaga	agaagaagaa	cgaagtgcac	120
cctagctcga	gcacgggttc	gtggatgtgg	aaccctagtg	ccgcccagga	ggatgatgac	180
tcgtgggagg	tgagagcctt	cgccgaagac	actagcaaca	ttatgggcgc	aacctggccg	240
ccgaggtcct	acacttgctc	tttctgtaga	agggagttcc	ggtccgcccc	agccctcggc	300
ggccacatga	atgtccaccg	cagagaccgt	gctaagcttc	accaatcaca	attccggccg	360
ctggcgaacc	aaaattctcc	tttcgcttct	tgctcttccc	cgtcctctcc	gactctgcta	420
ttcccgaatc	aaga					434

&lt;210&gt; 1191

&lt;211&gt; 479

&lt;212&gt; DNA

&lt;213&gt; Eucalyptus grandis

&lt;400&gt; 1191

gaatcgtttc	ttggactttc	ttgagctgct	cctttcgcct	catttctcaa	gtgcgtgaaa	60
accaaaaaaa	tggtgagggg	gaagactcag	atgaggaggga	tagagaacaa	gacgagcagg	120
caagtgcact	tctcgaagcg	tcggaacggg	ctgctcaaga	aggccttcga	gctctcggtt	180
ctttgcgatg	ctgaagtcgc	cgccatcatt	ttctctccta	ctggaaaact	ttatgagttc	240
tctacctcaa	gcatagagcag	cataatagaa	cgatatcaaa	ggaaaacaaa	ggaccggggg	300
tgacgagaga	aaactaccga	aatcgatttg	cagaatatga	agggaaactc	tctagacatg	360
gcaaagatga	tcgaacttct	caacgtttcc	aacagtcggc	tctcaggaga	actttcagat	420
acgtgttcag	ttgaggagct	acaatcaaca	cagaacctgt	tagagagaag	cttatccaa	479

<210> 1192  
 <211> 310  
 <212> DNA  
 <213> Eucalyptus grandis

<400> 1192  
 ccctcttctt cttctctctc ctctctctgt cgcagagctc cgtctgaact cgcagaatcc 60  
 acgcgcagag cgaccaaga gtgtttcaga acagtccgtc catggccttg gaagctatca 120  
 actctcccac cgcggcctca gcgcccgttc agttcatgga ggagcccttg agtcccgtc 180  
 tcttgagagc cctgaacaag cgcaagcgct ccaagcgccc ccaccaccct ccctccgaag 240  
 atgagtacct cgccctctgc ctcatcatgc tcgcccgag cggcgccgcc cccaagcca 300  
 accaccagc 310

<210> 1193  
 <211> 466  
 <212> DNA  
 <213> Eucalyptus grandis

<400> 1193  
 tttttttttt tttttattca aaaacaaaat ctcaacttgc ctttcttaat atatagtagc 60  
 caaagccttc tggagatcac cttttatcac ctaccaccag tcagataggt ctattgaata 120  
 tgcttgattg ctggttctc aagcatatgc aactacaaag actcccatat caaagcacta 180  
 gctgcataca cacttttaag ctaactaaca agagaattta aaaagaaaat cctcgctgca 240  
 ccaaaaaggc tcgatccata tgggcaccaa aacaaatagc tcacattggc ataagctttg 300  
 gaccattatc aggcattgccc atccctgcag ctaactcagc atcaagctga gtatgtggcg 360  
 caggacccat catttgcttc atacgtttct tgtggcgctt cgtcttgaaa tgctcgtccc 420  
 tcgtagcaac attcggaata tatcggtcgc agtgcaggca atagta 466

<210> 1194  
 <211> 295  
 <212> DNA  
 <213> Eucalyptus grandis

<400> 1194  
 gccacccaac acacacccaa gaaaattctt agagcctcct tagatatgcc tacagacctg 60  
 gacaattcgt ccacagcttc aggggaagct agtgtctcgt cttctggcaa tcagccgct 120  
 ccacaaccac cgccaccgcc ttccaccacc aagaaaaaga ggaatctccc tggaatgccc 180  
 gatccagatg cagaggtgat agctctgtct cccacgaccc tattggccac caacaggttc 240  
 gtctgcgaaa tctgcaacaa gggatttcag agggaccaga acttgagct ccaca 295

<210> 1195  
 <211> 337  
 <212> DNA  
 <213> Eucalyptus grandis

<400> 1195  
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&lt;211&gt; 351

&lt;212&gt; DNA

&lt;213&gt; Eucalyptus grandis

&lt;400&gt; 1197

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&lt;211&gt; 359

&lt;212&gt; DNA

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&lt;400&gt; 1198

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&lt;211&gt; 376

&lt;212&gt; DNA

&lt;213&gt; Eucalyptus grandis

&lt;400&gt; 1200

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&lt;212&gt; DNA

&lt;213&gt; Eucalyptus grandis

&lt;400&gt; 1210

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&lt;211&gt; 537

&lt;212&gt; DNA

&lt;213&gt; Eucalyptus grandis

&lt;400&gt; 1211

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&lt;210&gt; 1212

&lt;211&gt; 399

&lt;212&gt; DNA

&lt;213&gt; Eucalyptus grandis

&lt;400&gt; 1212

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&lt;211&gt; 283

&lt;212&gt; DNA

&lt;213&gt; Eucalyptus grandis

&lt;400&gt; 1213

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&lt;210&gt; 1214

&lt;211&gt; 324

&lt;212&gt; DNA

&lt;213&gt; Eucalyptus grandis

&lt;400&gt; 1214

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&lt;210&gt; 1215

&lt;211&gt; 358

&lt;212&gt; DNA

&lt;213&gt; Eucalyptus grandis

&lt;400&gt; 1215

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&lt;210&gt; 1216

&lt;211&gt; 329

&lt;212&gt; DNA

&lt;213&gt; Eucalyptus grandis

&lt;400&gt; 1216

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&lt;211&gt; 346

&lt;212&gt; DNA

&lt;213&gt; Eucalyptus grandis

&lt;400&gt; 1217

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&lt;211&gt; 468

&lt;212&gt; DNA

&lt;213&gt; Eucalyptus grandis

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<211> 354

<212> DNA

<213> Eucalyptus grandis

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<213> Eucalyptus grandis

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 <212> DNA  
 <213> Eucalyptus grandis

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 <212> DNA  
 <213> Eucalyptus grandis

<400> 1224  
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 <213> Eucalyptus grandis

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<210> 1226  
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 <212> DNA  
 <213> Eucalyptus grandis

<400> 1226  
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 tggtagtga cgtgcacgac gagcgcaaag gggagtcgag gttcctggtg atggatgcca 180  
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 tgcgacgtgg aggtacagag attgggggtct tttattacag gattttacgt agtctagagc 360  
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<210> 1227  
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 <212> DNA  
 <213> Eucalyptus grandis

<400> 1227  
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&lt;210&gt; 1228

&lt;211&gt; 435

&lt;212&gt; DNA

&lt;213&gt; Eucalyptus grandis

&lt;400&gt; 1228

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gaagagagag	aagaa					435

&lt;210&gt; 1229

&lt;211&gt; 252

&lt;212&gt; DNA

&lt;213&gt; Eucalyptus grandis

&lt;400&gt; 1229

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tcggtgatct	ca					252

&lt;210&gt; 1230

&lt;211&gt; 326

&lt;212&gt; DNA

&lt;213&gt; Eucalyptus grandis

&lt;400&gt; 1230

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gggtatgcgg	ccgagatccg	agaccgggag	aagaagaccc	gantctggct	cggcaccttc	180
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&lt;210&gt; 1231

&lt;211&gt; 424

&lt;212&gt; DNA

&lt;213&gt; Eucalyptus grandis

&lt;400&gt; 1231

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&lt;210&gt; 1232

&lt;211&gt; 321



&lt;212&gt; DNA

<213> *Eucalyptus grandis*

&lt;400&gt; 1232

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cccgtcaccg	acctccccgt	cgtcggccat	ctccctgatt	gcttgaatgg	agaattcgctc	240
cggttgggcc	ccaatcccaa	gtttgccccg	gtcgccggat	accactgggt	tgatggagat	300
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&lt;210&gt; 1233

&lt;211&gt; 508

&lt;212&gt; DNA

<213> *Eucalyptus grandis*

&lt;400&gt; 1233

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ggagatggca	tggttcatgg	gatgcggata	aaaaatggca	aagctactta	cgtctctcgc	360
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aaactgaaaa	tactagatgt	ttcatatg				508

&lt;210&gt; 1234

&lt;211&gt; 503

&lt;212&gt; DNA

<213> *Eucalyptus grandis*

&lt;400&gt; 1234

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gctgggtggaa	ggagctggcg	gga				503

&lt;210&gt; 1235

&lt;211&gt; 367

&lt;212&gt; DNA

<213> *Eucalyptus grandis*

&lt;400&gt; 1235

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&lt;210&gt; 1236

&lt;211&gt; 360

&lt;212&gt; DNA

<213> *Eucalyptus grandis*

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 <213> Eucalyptus grandis

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<210> 1238  
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 <213> Eucalyptus grandis

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<210> 1239  
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 <212> DNA  
 <213> Eucalyptus grandis

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 <212> DNA  
 <213> Eucalyptus grandis

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<400> 1244

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&lt;210&gt; 1245

&lt;211&gt; 383

&lt;212&gt; DNA

&lt;213&gt; Eucalyptus grandis

&lt;400&gt; 1245

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&lt;210&gt; 1246

&lt;211&gt; 380

&lt;212&gt; DNA

&lt;213&gt; Eucalyptus grandis

&lt;400&gt; 1246

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&lt;210&gt; 1247

&lt;211&gt; 360

&lt;212&gt; DNA

&lt;213&gt; Eucalyptus grandis

&lt;400&gt; 1247

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&lt;210&gt; 1248

&lt;211&gt; 351

&lt;212&gt; DNA

&lt;213&gt; Eucalyptus grandis

&lt;400&gt; 1248

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<210> 1250  
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 <212> DNA  
 <213> *Eucalyptus grandis*

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 agccatgtcg agcgacgcgc gcgcgcgcctc cggcgccacc gccgcccggc ccggggagtt 180  
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 <212> DNA  
 <213> *Eucalyptus grandis*

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 ggttgagctt ggttgaattt cttgataagt tgaataagta tgcggagtc tctgttcata 180  
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<210> 1252  
 <211> 378  
 <212> DNA  
 <213> *Eucalyptus grandis*

<400> 1252  
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 aacttgcata ctgcaggcga agataattgt gatctctcac aggcagatcc actcgagatc 180  
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 <212> DNA  
 <213> *Eucalyptus grandis*

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 gaaaatgctt ggaagggctt ccaggaat 388

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 <212> DNA  
 <213> *Eucalyptus grandis*

<400> 1254  
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 ggcggcgtga ggctcttctg ggtgaggctg acggacggct cgatcatcaa gaagagcgcc 180  
 agcaccagca gcctctcgtc ccaccacctc ctccccccct cctcctcgcc gtcgccttcg 240  
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<210> 1255  
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 <212> DNA  
 <213> *Eucalyptus grandis*

<400> 1255  
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 catggacggg ttttgagttg catgaatgct gtttggcatc ctgaatgttt ctgctgccgt 180  
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 acaaaccttg ccggtcttat tgagtacagg gcgcacctt tttggagtca 350

<210> 1256  
 <211> 377  
 <212> DNA  
 <213> *Eucalyptus grandis*

<400> 1256  
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<210> 1257  
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 <212> DNA  
 <213> *Eucalyptus grandis*

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&lt;210&gt; 1258

&lt;211&gt; 311

&lt;212&gt; DNA

&lt;213&gt; Eucalyptus grandis

&lt;400&gt; 1258

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&lt;210&gt; 1259

&lt;211&gt; 588

&lt;212&gt; DNA

&lt;213&gt; Eucalyptus grandis

&lt;400&gt; 1259

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&lt;210&gt; 1260

&lt;211&gt; 620

&lt;212&gt; DNA

&lt;213&gt; Eucalyptus grandis

&lt;400&gt; 1260

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&lt;210&gt; 1261

&lt;211&gt; 562

&lt;212&gt; DNA

&lt;213&gt; Eucalyptus grandis

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<212> DNA  
<213> Eucalyptus grandis

<400> 1262  
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<210> 1263  
<211> 381  
<212> DNA  
<213> Eucalyptus grandis

<400> 1263  
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<210> 1264  
<211> 316  
<212> DNA  
<213> Eucalyptus grandis

<400> 1264  
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<212> DNA  
<213> Eucalyptus grandis

<400> 1265  
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&lt;210&gt; 1266

&lt;211&gt; 360

&lt;212&gt; DNA

&lt;213&gt; Eucalyptus grandis

&lt;400&gt; 1266

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&lt;210&gt; 1267

&lt;211&gt; 375

&lt;212&gt; DNA

&lt;213&gt; Eucalyptus grandis

&lt;400&gt; 1267

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&lt;210&gt; 1268

&lt;211&gt; 567

&lt;212&gt; DNA

&lt;213&gt; Eucalyptus grandis

&lt;400&gt; 1268

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&lt;210&gt; 1269

&lt;211&gt; 567

&lt;212&gt; DNA

&lt;213&gt; Eucalyptus grandis

&lt;400&gt; 1269

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&lt;210&gt; 1270

&lt;211&gt; 325

&lt;212&gt; DNA

&lt;213&gt; Eucalyptus grandis

&lt;400&gt; 1270

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gcctcgtgta	cttcgacggc	cacct				325

&lt;210&gt; 1271

&lt;211&gt; 365

&lt;212&gt; DNA

&lt;213&gt; Eucalyptus grandis

&lt;400&gt; 1271

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ctgct						365

&lt;210&gt; 1272

&lt;211&gt; 365

&lt;212&gt; DNA

&lt;213&gt; Eucalyptus grandis

&lt;400&gt; 1272

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ttctg						365

&lt;210&gt; 1273

&lt;211&gt; 328

&lt;212&gt; DNA

&lt;213&gt; Eucalyptus grandis

&lt;400&gt; 1273

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&lt;210&gt; 1274

&lt;211&gt; 390

&lt;212&gt; DNA

&lt;213&gt; Eucalyptus grandis

&lt;400&gt; 1274

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&lt;210&gt; 1275

&lt;211&gt; 384

&lt;212&gt; DNA

&lt;213&gt; Eucalyptus grandis

&lt;400&gt; 1275

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&lt;210&gt; 1276

&lt;211&gt; 382

&lt;212&gt; DNA

&lt;213&gt; Eucalyptus grandis

&lt;400&gt; 1276

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&lt;210&gt; 1277

&lt;211&gt; 367

&lt;212&gt; DNA

&lt;213&gt; Eucalyptus grandis

&lt;400&gt; 1277

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&lt;210&gt; 1278

&lt;211&gt; 384

&lt;212&gt; DNA

&lt;213&gt; Eucalyptus grandis

&lt;400&gt; 1278

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&lt;210&gt; 1279

&lt;211&gt; 368

&lt;212&gt; DNA

&lt;213&gt; Eucalyptus grandis

&lt;400&gt; 1279

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aaaccagc						368

&lt;210&gt; 1280

&lt;211&gt; 341

&lt;212&gt; DNA

&lt;213&gt; Eucalyptus grandis

&lt;400&gt; 1280

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&lt;210&gt; 1281

&lt;211&gt; 295

&lt;212&gt; DNA

&lt;213&gt; Eucalyptus grandis

&lt;400&gt; 1281

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&lt;210&gt; 1282

&lt;211&gt; 365

&lt;212&gt; DNA

&lt;213&gt; Eucalyptus grandis

&lt;400&gt; 1282

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 <212> DNA  
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 <212> DNA  
 <213> Eucalyptus grandis

<400> 1285  
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 <213> Eucalyptus grandis

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<212> DNA  
<213> *Eucalyptus grandis*

<400> 1289  
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<212> DNA  
<213> *Eucalyptus grandis*

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<212> DNA  
<213> *Eucalyptus grandis*

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 <212> DNA  
 <213> Eucalyptus grandis

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&lt;210&gt; 1310

&lt;211&gt; 383

&lt;212&gt; DNA

&lt;213&gt; Eucalyptus grandis

&lt;400&gt; 1310

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&lt;210&gt; 1311

&lt;211&gt; 455

&lt;212&gt; DNA

&lt;213&gt; Eucalyptus grandis

&lt;400&gt; 1311

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&lt;210&gt; 1312

&lt;211&gt; 472

&lt;212&gt; DNA

&lt;213&gt; Eucalyptus grandis

&lt;400&gt; 1312

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&lt;210&gt; 1313

&lt;211&gt; 384

&lt;212&gt; DNA

&lt;213&gt; Eucalyptus grandis

&lt;400&gt; 1313

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&lt;210&gt; 1314

&lt;211&gt; 428

&lt;212&gt; DNA

&lt;213&gt; Eucalyptus grandis

&lt;400&gt; 1314

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&lt;210&gt; 1315

&lt;211&gt; 140

&lt;212&gt; DNA

&lt;213&gt; Eucalyptus grandis

&lt;400&gt; 1315

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&lt;210&gt; 1316

&lt;211&gt; 502

&lt;212&gt; DNA

&lt;213&gt; Eucalyptus grandis

&lt;400&gt; 1316

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&lt;210&gt; 1317

&lt;211&gt; 365

&lt;212&gt; DNA

&lt;213&gt; Eucalyptus grandis

&lt;400&gt; 1317

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<211> 382

<212> DNA

<213> Eucalyptus grandis

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<212> DNA

<213> Eucalyptus grandis

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<212> DNA

<213> Eucalyptus grandis

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 <213> Eucalyptus grandis

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ccgcttttggg tgtcggggcgg ggaccgcctc gccgactgcg gctgcgagag ggccaagcag 300  
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<212> DNA  
<213> Eucalyptus grandis

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<212> DNA  
<213> Eucalyptus grandis

<400> 1335  
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<212> DNA  
<213> Eucalyptus grandis

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&lt;210&gt; 1337

&lt;211&gt; 322

&lt;212&gt; DNA

&lt;213&gt; Eucalyptus grandis

&lt;400&gt; 1337

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&lt;210&gt; 1338

&lt;211&gt; 536

&lt;212&gt; DNA

&lt;213&gt; Eucalyptus grandis

&lt;400&gt; 1338

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&lt;210&gt; 1339

&lt;211&gt; 438

&lt;212&gt; DNA

&lt;213&gt; Eucalyptus grandis

&lt;400&gt; 1339

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&lt;210&gt; 1340

&lt;211&gt; 533

&lt;212&gt; DNA

&lt;213&gt; Eucalyptus grandis

&lt;400&gt; 1340

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 <213> Eucalyptus grandis

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<210> 1345  
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<212> DNA  
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<212> DNA  
<213> Eucalyptus grandis

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<212> DNA  
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<400> 1347  
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<210> 1348  
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<212> DNA  
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&lt;213&gt; Eucalyptus grandis

&lt;400&gt; 1350

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&lt;210&gt; 1351

&lt;211&gt; 305

&lt;212&gt; DNA

&lt;213&gt; Eucalyptus grandis

&lt;400&gt; 1351

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agctg						305

&lt;210&gt; 1352

&lt;211&gt; 517

&lt;212&gt; DNA

&lt;213&gt; Eucalyptus grandis

&lt;400&gt; 1352

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&lt;210&gt; 1353

&lt;211&gt; 472

&lt;212&gt; DNA

&lt;213&gt; Eucalyptus grandis

&lt;400&gt; 1353

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&lt;210&gt; 1354

&lt;211&gt; 472

&lt;212&gt; DNA

&lt;213&gt; Eucalyptus grandis

&lt;400&gt; 1354

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&lt;210&gt; 1355

&lt;211&gt; 503

&lt;212&gt; DNA

&lt;213&gt; Eucalyptus grandis

&lt;400&gt; 1355

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&lt;210&gt; 1356

&lt;211&gt; 360

&lt;212&gt; DNA

&lt;213&gt; Eucalyptus grandis

&lt;400&gt; 1356

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&lt;210&gt; 1357

&lt;211&gt; 377

&lt;212&gt; DNA

&lt;213&gt; Eucalyptus grandis

&lt;400&gt; 1357

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&lt;210&gt; 1358

&lt;211&gt; 360

&lt;212&gt; DNA

&lt;213&gt; Eucalyptus grandis

&lt;400&gt; 1358

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tgctcctgat	ggacatatta	cagagattat	ctacaaaagga	actcatgatc	accctaaacc	180

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taggttttca	tttatacctg	cagtggagag	cacatcgacc	gtatatggcg	agacatctta	300
taatgttgag	actgatggta	ctcctgaact	atctcctgtt	gctgagaatg	acgaaactat	360

&lt;210&gt; 1359

&lt;211&gt; 347

&lt;212&gt; DNA

<213> *Eucalyptus grandis*

&lt;400&gt; 1359

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gggaaaaacc	ctagcggatc	ccctccgggc	gccaatcat	ctcctgatcc	ccgcccgcgc	120
ccatgccgcc	gtcgatcccc	ccgcgcccc	tctcgccgtc	gatctccagc	tgatcgcgcc	180
tccgattttg	ctccccgcc	cggcgcgatg	gtggtctgca	aatgccgcaa	ggctacgaag	240
ttatactgct	tcgtgcacaa	ggtcctctgt	tgtggagaat	gcatatgctt	tacggagcac	300
caaatatgcg	tggttcgtac	ttactcagaa	tgggttatag	atggcgca		347

&lt;210&gt; 1360

&lt;211&gt; 326

&lt;212&gt; DNA

<213> *Eucalyptus grandis*

&lt;400&gt; 1360

ctcctcctcc	ccctccacct	cctcctctgg	cgccgcggcn	gcggcgccgg	cctcngcctc	60
cggcggcggg	gtgaagctgt	tcgggggttag	gttaacggac	gggtcgatca	tgaagaanag	120
cgccagcggtg	gggtgcctgt	ccgcgcgccc	ctaccactcc	tcgtcctccg	ccgcggcatc	180
cccgaacccc	ggctcgtccc	cgatcgacgg	gagcgacggc	tacctgtccg	acgatcccgc	240
gcccggctcc	cgctcgtcca	atcggcgcg	cgagagggaag	aaaggatatcg	aggattttga	300
ttgacgcgcg	gctccctgat	tcctcg				326

&lt;210&gt; 1361

&lt;211&gt; 526

&lt;212&gt; DNA

<213> *Eucalyptus grandis*

&lt;400&gt; 1361

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ctccggattt	tcgtccctt	ttgggggtcc	tcgatttgat	gataagccat	ggatgcctgg	120
ggctcgtgcta	gtgtgctgcg	cgcgctcctg	tggctcgctt	tgcttggggg	tggccgcacg	180
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gctgaattcg	ctccgccgat	taagggttct	gggggttgcg	gcgtgctgta	tcttgccggac	300
ccgatcgatg	cgtgctctca	attgggtgaat	gaggccaacc	ggttgccgaa	tgctagctcc	360
ccttttcgcc	taattgttag	gggaggagga	tgtagtctcg	aagagaaagt	taggagagct	420
caaaaaggctg	gattcaaagc	ggctattgtc	tatgacaacg	aagctgatgg	caacttggtg	480
ccaatggctg	gacattcagc	tgggataaag	atccatgctg	tgttcg		526

&lt;210&gt; 1362

&lt;211&gt; 307

&lt;212&gt; DNA

<213> *Eucalyptus grandis*

&lt;400&gt; 1362

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acgggacgta	tgggccccga	atcttgagat	agagatgcag	aacatccgcg	aggccatcga	120
gaaatactcg	tatgtttcaa	tggacaccga	gttcttgag	tgggtggcgcg	gcccataagg	180
aacttcaaaa	cgtcctcgga	ctaccactac	cagacgatgc	gctgtaacgt	cgaccttctc	240
aagatcatcc	aagtcgggat	cacgctggca	gacgaggagg	ggttggttccc	gcaggactgc	300
tctacgt						307

&lt;210&gt; 1363

&lt;211&gt; 353

&lt;212&gt; DNA

&lt;213&gt; Eucalyptus grandis

&lt;400&gt; 1363

cttgaagggtg	acttcaacaa	acacgatgag	gataactgga	tccaagaaga	gtttgagaac	60
catgtggnta	aacaacgtga	aggaaagagg	ccgcttttga	ctggagatct	cctagtgaag	120
ctcgaaagag	gtgttgggaa	gctgggaagt	ttcatgttta	ctgacaattc	cagctggaat	180
aggagtaaaa	gtttcaggat	agggcttaag	gtggcctcag	gttattgtgg	gaacacacga	240
atccgagaag	caaaaacata	agccttcact	gtgagggagc	atagaggaga	atcatataag	300
aaacattatc	cacctgcacc	tgacgattaa	atctggaggt	tggagaagat	cgc	353

&lt;210&gt; 1364

&lt;211&gt; 324

&lt;212&gt; DNA

&lt;213&gt; Eucalyptus grandis

&lt;400&gt; 1364

cctcgcccgg	caaaaccgat	tcgagggtcg	gagtcgagta	aagatgaatg	tggagaagct	60
tatgaagatg	gcgggttcag	tccgcactgg	tggaaagggt	accatgagaa	gaaagaagaa	120
ggctgtgcac	aagacaacta	ccacggatga	caaaaggctc	caaagcactc	tcaaaagaat	180
tgggggtta	gctattcctg	caattgagga	agtcaacatt	ttcaaggatg	atgttgtcat	240
ccaatttgta	aatcccaaag	ttcaagcctc	tattgcagcc	aatacatggg	ttgtcagtgg	300
tgctcctcag	accaagaaat	tgca				324

&lt;210&gt; 1365

&lt;211&gt; 306

&lt;212&gt; DNA

&lt;213&gt; Eucalyptus grandis

&lt;400&gt; 1365

gacaaattga	tgaacatga	atatggatgg	gtgtttaaca	ctccggttga	tgtaaagggc	60
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acaaggctga	accggaactg	gtataagtca	ccgaaagaat	ttgcagagga	tgtcagactt	180
acgttccgta	atgccatgac	atataaccct	gaagggcaag	atgttcatgt	catggctgag	240
attctgtaca	agatatttga	ggatagatgg	gccattatag	agtcagatta	taatcgtgaa	300
atgcgg						306

&lt;210&gt; 1366

&lt;211&gt; 345

&lt;212&gt; DNA

&lt;213&gt; Eucalyptus grandis

&lt;400&gt; 1366

cgggccgctg	cagctttccc	ctccgtgtcg	acacgacgac	gactccgccc	ccgctccccc	60
ctcgcgtcgt	ctctccttct	ctcgcoctgt	atatatctct	cgtcccccga	caaaaaaagg	120
agaaatctga	agagagggga	ctgaaattag	gttattgaga	aggattcttc	ccgtgaccaa	180
tcttttggag	aaagatggct	tctcaattta	atttcaaagg	cataaccgat	gcacgcaag	240
ctgaaggagt	agctgggaaa	tcacacggaa	atcactcttt	aactcggcag	ccatcaatat	300
atgctttgac	ttttgatgag	tttcaaaaca	catgggggtgg	gcttg		345

&lt;210&gt; 1367

&lt;211&gt; 292

&lt;212&gt; DNA

&lt;213&gt; Eucalyptus grandis

&lt;400&gt; 1367

cgaaggctct	acatttatga	aactcaagg	ctgaaggatg	catttattat	atgtctcaat	60
gccgtagagt	ccattgatgc	aactaaaaag	gggagccttg	ctaggttcat	aaatcattca	120
tgccagccaa	attgtgagac	aaggaaatgg	aatgtattgg	gggagataag	agttggcata	180
tttgccaagc	atgacattcc	tgctggatct	gaattgtcat	atgattataa	cttcgagtgg	240
tatggtggag	ccaagggtccg	ttgtctctgt	ggtgcaccta	gctgtctggt	tt	292

<210> 1368  
 <211> 278  
 <212> DNA  
 <213> Eucalyptus grandis

<400> 1368  
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 ggacgaggag gacgggaggg cggccgggga ggacggcgtg ctgggctgcg acgagttccg 120  
 gatgtacgag ttcaaggtga ggaagtgcgc gcgcgggagg tcgcacgact ggacagagtg 180  
 cccgtacgcg caccgcggcg agaaggcgcg acgcagggac ccgcgccggt tcttctactc 240  
 cggcactgca tgtcctgatt tccgcaaagg cgcgtgca 278

<210> 1369  
 <211> 328  
 <212> DNA  
 <213> Eucalyptus grandis

<400> 1369  
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 aactctgata aagcatccct cggctatctg tcggatggcc tgctgggtag atccaagag 120  
 aagaagaaag gagttccatg gacagaggag gaacacagaa ccttcttggt ggggcttgag 180  
 aagcttggga aggggtgatt gagaggcatc tctaggagct atgtgaccac aagaacaccg 240  
 gccaggttg caagtcatgc tcagaaatat ttcctccggc aagtgagctt caacaagaaa 300  
 aagcggcgct cgagcctctt tgacatgg 328

<210> 1370  
 <211> 96  
 <212> DNA  
 <213> Eucalyptus grandis

<400> 1370  
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 tgagggngac atgatgcttg ttggggatga cccgtg 96

<210> 1371  
 <211> 320  
 <212> DNA  
 <213> Eucalyptus grandis

<400> 1371  
 agagagagaa gaacccttct tcacaaacct ctctctctct ctctctctct cttccctgt 60  
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 gcgcggggaa ttcggccgtg gtttcgattt tgtcgagcga gatcagcaga atcaggagat 180  
 caggacaatg gagtctcaca atgagacagg atgccagcct ccaaaaggcc caatcctctg 240  
 catcaacaac tgtggcttct ttggaagtgc tgccactgcc aatatgtgct cgaagtgcc 300  
 caaggatgtg atgctgaagc 320

<210> 1372  
 <211> 343  
 <212> DNA  
 <213> Eucalyptus grandis

<400> 1372  
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 ctgcgctcgt ctctccttct ctgcgccgtg atatatctct cgtccccga caaaaaagg 120  
 agaaatctga agagagggga ctgaaattag gttattgaga aggattcttc ccgtgaccaa 180  
 tcttttgag aaagatggct tctcaattta atttcaaagg cataaccgat gcacgcaag 240  
 ctgaaggagt agctgggaaa tcacacggaa atcactcttt aactcggcag ccatcaatat 300  
 atgctttgac ttttgatgag tttcaaaaca catgggggtg gct 343



<210> 1373  
 <211> 310  
 <212> DNA  
 <213> *Eucalyptus grandis*

<400> 1373  
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 accctcccc cgccgcctcc cccgcggctc tcttcogagg cggccaagggt ggcctacagg 180  
 tgccccgtct gcgacaaggg cttccccctc taccaggccc tgggcggcca caaggccagc 240  
 caccgcaagc acgcctctc cgccgcggcc gccgcgggg gtgacgacca gccgaccacc 300  
 tcgagcacct 310

<210> 1374  
 <211> 306  
 <212> DNA  
 <213> *Eucalyptus grandis*

<400> 1374  
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 caattgcttg atgctcctct cccgtgttgg cgagagcacc gactcggcgt cgccggaccg 180  
 caaatcgcg cctacagagc gaatgttcgc ctgcaacact tgcaaccgcg agttctnctc 240  
 gttccaggcg ctccggagggc acaaagccag ccacaagaag cagaagctga tctccggtga 300  
 cctctt 306

<210> 1375  
 <211> 273  
 <212> DNA  
 <213> *Eucalyptus grandis*

<400> 1375  
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 gcttcaagcg cccccacaac ccgcccctcc aggacgagta cctcgcctc tggctgatca 120  
 tgetcgccc cgccggcgcc ggccggaccc tacccccgc gccctcccc gtggctctctt 180  
 ccgaggcggt caatgtggcc tacaggtgcc ccgactgcga caagggttc cctcctacc 240  
 aggccttggg cgccacaag gccagccacc gta 273

<210> 1376  
 <211> 319  
 <212> DNA  
 <213> *Eucalyptus grandis*

<400> 1376  
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 gaaatcagaa gaggagcaga gcgacacgag caactcgcaa gagaagggtc tcaagaaacc 120  
 tgacaagata ctcccttgcc ctcgatgtaa tagcatggac accaaattct gttactacaa 180  
 caactataat gtgaaccagc ccgcacactt ctgcaagaac tgccagagat actggacagc 240  
 tgggtggaacc atgaggaatg ttctgtgagg tgctggccgc cgcaagaaca agaactcggc 300  
 atctcattac cgtcatcta 319

<210> 1377  
 <211> 339  
 <212> DNA  
 <213> *Eucalyptus grandis*

<400> 1377  
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 aggaaggaag gtaaaaagaa aagaaaagga agccatggct ccgagagaaa agcccagcgt 120  
 cgccgccatc ccaaacccta acggcgctaa ggaaatccgt ttccggggcg tccggaagag 180  
 gccctggggc cgctacgccg ccgagatccg ggaccccgcc aagaagacc gggtgtggct 240

cggcaccttc	gacacagccg	aggaggccgc	ccgcgcctac	gacaccgccg	cccgcgagtt	300
ccgcggcgcc	aaggccaaga	ccaacttccc	cacctccgc			339

<210> 1378  
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 <212> DNA  
 <213> Eucalyptus grandis

<400> 1378						
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attcctcatc	tttgggtggc	gcgagaggcg	ggtgcgaggc	atttcgggtc	gcgggtgtat	180
gtgcgtgggg	ttgggggttg	ggtgggggag	atgaagattc	agtgcacacg	gtgcgaggcg	240
gcggaggcga	gcgtcctctg	ctgcgccgac	gaggcggcgc	tctgctgggc	ctgcgacgag	300
aaggtgcacg	ccgccaacaa	gctcgccagc	aagcaccagc	gcg		343

<210> 1379  
 <211> 368  
 <212> DNA  
 <213> Eucalyptus grandis

<400> 1379						
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tcagaataat	ggagtctcac	gatgagacag	gatgccaggc	cccaaaaggc	ccaatcctct	180
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<210> 1380  
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 <212> DNA  
 <213> Eucalyptus grandis

<400> 1380						
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ctcaagtgtt	gctgcaaagt	cagaaaagct	tgctgccttg	cagaacgaat	atcattttgc	180
taaagcaagg	attgatgaag	atcatgagaa	ggcgagcgga	ctggagaaga	aggtcaaaac	240
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caagcagctg	gacactgcag	ggacagaact	cgagtgtttc	ccagctctgc	agaagcaaga	360
gc						362

<210> 1381  
 <211> 459  
 <212> DNA  
 <213> Eucalyptus grandis

<400> 1381						
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attgagtcct	ctctcaatca	gttctccgtc	agcatcggtg	cctgttactt	caacagcacc	180
catgtctcct	cttgacgcct	cgatcatctc	gatgtctgtg	aacatgtggc	agagcaaggc	240
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acagcatcag	ttgatggaag	agatatctcg	tctctcctca	ccatcatcct	gcttttagtag	420
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<210> 1382  
 <211> 319

&lt;212&gt; DNA

&lt;213&gt; Eucalyptus grandis

&lt;400&gt; 1382

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cttcaggctc	agaacccatgg	ctcagactgt	tggtctcaag	gttaaaatgt	catgtcaagg	120
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cgatctgaag	gaacagaagg	tgacagtcaa	gggcaatctg	cagcccgatg	ctgtcctgca	240
aaccgtctca	aagtccggaa	aacaaactgc	tttctgggaa	gcggaagccc	cagcccaacc	300
cgaagtgaag	cccaccgaa					319

&lt;210&gt; 1383

&lt;211&gt; 408

&lt;212&gt; DNA

&lt;213&gt; Eucalyptus grandis

&lt;400&gt; 1383

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aatttaggga	tatttatatg	catgcaatgt	tcaggaatcc	atagaagtct	tggggtagac	360
atatcgaagg	tccgatcagc	tactttggac	acatggcttc	cagagcag		408

&lt;210&gt; 1384

&lt;211&gt; 315

&lt;212&gt; DNA

&lt;213&gt; Eucalyptus grandis

&lt;400&gt; 1384

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gatggaagaa	atttgcagct	acaattcagg	accagggtgt	cgctcccgtc	ctttactgga	120
ggcaaaagtgg	aaggcgagca	aggtgctgca	atccatgtcg	tcttaatgaa	tgcagataca	180
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ggggatttca	acaatgaaga	tgatgacact	tggactcagg	aagaatttga	cagtcagtga	300
gtgaaagaac	gtgaa					315

&lt;210&gt; 1385

&lt;211&gt; 375

&lt;212&gt; DNA

&lt;213&gt; Eucalyptus grandis

&lt;400&gt; 1385

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ctggctcggc	tcttacgaca	cccccgagaa	ggcggcccg	gccttcgacg	ccgccgcctt	300
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cgcgcgctcc	ctctc					375

&lt;210&gt; 1386

&lt;211&gt; 332

&lt;212&gt; DNA

&lt;213&gt; Eucalyptus grandis

&lt;400&gt; 1386

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tccccgcct	tcgacgcgga	ccacctcgcc	gcgctcgccg	ccgcttctag	tccgtacgct	180

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gactcgccgc	tggacctcta	cacgtccgat	cacttcgcga	tgtacgagtt	caagggtccgg	300
cgggtgcgcgc	gcggcaagtc	ccacgactgg	ac			332

&lt;210&gt; 1387

&lt;211&gt; 320

&lt;212&gt; DNA

&lt;213&gt; Eucalyptus grandis

&lt;400&gt; 1387

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ccttccaaaag	ttgggtcaca	attggaagct	gtggataatc	tgaaagagtt	gcaggtcctg	180
gaaaatgacc	agacacctaa	ggtgaggaag	ccttacacca	tctccaagca	aagagagaaa	240
tggacggacg	aagagcatga	gaggttcctt	gaagctttga	aactgtatgg	ccgcggttgg	300
cgtcagatag	aagagcatgt					320

&lt;210&gt; 1388

&lt;211&gt; 409

&lt;212&gt; DNA

&lt;213&gt; Eucalyptus grandis

&lt;400&gt; 1388

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&lt;210&gt; 1389

&lt;211&gt; 313

&lt;212&gt; DNA

&lt;213&gt; Eucalyptus grandis

&lt;400&gt; 1389

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&lt;210&gt; 1390

&lt;211&gt; 329

&lt;212&gt; DNA

&lt;213&gt; Eucalyptus grandis

&lt;400&gt; 1390

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&lt;210&gt; 1391

&lt;211&gt; 156

&lt;212&gt; DNA

&lt;213&gt; Eucalyptus grandis

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 <212> DNA  
 <213> Eucalyptus grandis

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 <212> DNA  
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 <212> DNA  
 <213> Eucalyptus grandis

<400> 1394  
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&lt;210&gt; 1396

&lt;211&gt; 462

&lt;212&gt; DNA

&lt;213&gt; Eucalyptus grandis

&lt;400&gt; 1396

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&lt;210&gt; 1397

&lt;211&gt; 407

&lt;212&gt; DNA

&lt;213&gt; Eucalyptus grandis

&lt;400&gt; 1397

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&lt;210&gt; 1398

&lt;211&gt; 456

&lt;212&gt; DNA

&lt;213&gt; Eucalyptus grandis

&lt;400&gt; 1398

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&lt;210&gt; 1399

&lt;211&gt; 474

&lt;212&gt; DNA

&lt;213&gt; Eucalyptus grandis

&lt;400&gt; 1399

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&lt;210&gt; 1400

&lt;211&gt; 443

&lt;212&gt; DNA

&lt;213&gt; Eucalyptus grandis

&lt;400&gt; 1400

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&lt;210&gt; 1401

&lt;211&gt; 481

&lt;212&gt; DNA

&lt;213&gt; Eucalyptus grandis

&lt;400&gt; 1401

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&lt;210&gt; 1402

&lt;211&gt; 384

&lt;212&gt; DNA

&lt;213&gt; Eucalyptus grandis

&lt;400&gt; 1402

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&lt;210&gt; 1403

&lt;211&gt; 380

&lt;212&gt; DNA

&lt;213&gt; Eucalyptus grandis

&lt;400&gt; 1403

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 <212> DNA  
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<212> DNA  
<213> Eucalyptus grandis

<400> 1414  
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tgccaacctg gcaatcttag gagaaggcga ggtgctccca tcatcttctt catcatctca 240  
agccacaaca aagcaccttc gacaccgacc aggggtgttca tgtattgttt gtatacaacc 300  
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<210> 1415  
<211> 313  
<212> DNA  
<213> Eucalyptus grandis

<400> 1415  
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ggagccgcag tgccgcgggt gttcccagag gcgcactggg tccgagtcag gttccgccag 180  
tcggatcacc atccaatcgg atcgggcaag ggctcaccga tattggaggg ttcacagccc 240  
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tacaggcgaa ctg 313

<210> 1416  
<211> 489  
<212> DNA  
<213> Eucalyptus grandis

<400> 1416  
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actgtcccgt cgcgcgaatt caccgccgcc tcgtaggaga ccgcatecta cgccgcgcgc 180

gcgatggcgg	cgccacgagg	agatgccagg	ggaaggaatc	aattacttcc	tcgttactgg	240
cccaggataa	cagatcaaga	gctacaacaa	atctctggag	actcaaactc	tgtaatcact	300
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ccaagaaaat	gtgccgaggg	ctattttccg	cctatttccc	agcctgaagg	attgccgctc	420
aaagtgcagg	atgccaaaagg	ctcggagtgg	atattttcaat	ttcgattctg	gccaataat	480
aacagtaga						489

&lt;210&gt; 1417

&lt;211&gt; 372

&lt;212&gt; DNA

&lt;213&gt; Eucalyptus grandis

&lt;400&gt; 1417

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cttcgacggc	cacctcctcg	cgatgtccga	ggacgacctc	ccctaccacg	tcgcgcgtcac	180
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gatgatcgcc	cacccgaaga	tcgaccggcg	ttccggcgag	atgttcgccc	tcagctacga	300
cgtcgtccgg	aagccgtacc	tcaagtactt	ccgattctcc	aaggacggcg	agaagtcccc	360
cgacgtcgag	at					372

&lt;210&gt; 1418

&lt;211&gt; 354

&lt;212&gt; DNA

&lt;213&gt; Eucalyptus grandis

&lt;400&gt; 1418

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aaatctcctg	gttctagatt	tgaggatgcc	tcaaataatg	gggcaagcca	gaatgtacag	180
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tggaggatcg	taaaaatgct	aatcaatc	tgaagcagat	taggcagcac	tcct	354

&lt;210&gt; 1419

&lt;211&gt; 540

&lt;212&gt; DNA

&lt;213&gt; Eucalyptus grandis

&lt;400&gt; 1419

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actcgcgcag	cacatcgtag	tgtgtaggaa	catattcgct	tcctgaatca	ttgtccatcg	360
ctgtagaatc	attttcttct	tcttcgtag	actcgttcga	attgttgttt	tccgttgagg	420
tcgtcgcaga	ttcaggagat	ccagcaggat	tggagataac	tggctcatcc	acaggcaaca	480
acgcgatttc	ggcgagattt	tccatcagga	tgggctccac	agtgaccgga	gggccccctg	540

&lt;210&gt; 1420

&lt;211&gt; 349

&lt;212&gt; DNA

&lt;213&gt; Eucalyptus grandis

&lt;400&gt; 1420

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ggtctaaaaa	aatatgggaa	aggtgattgg	agaaacatct	ccaggaactt	cgtgatcacg	180
agaacaccga	cgcaagtagc	tagccacgca	cagaaatact	tcacagaca	actttcaggt	240
ggaaaagata	agagaagggc	cagcatccac	gatatcacia	ctgtgaatct	cacagagact	300

agaactcctt caccagatga taaaaggccg ccttcgccag atccttcat

349

<210> 1421

<211> 378

<212> DNA

<213> Eucalyptus grandis

<400> 1421

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cgaagcanca	cgcgagagaag	cacttcccgc	tgccggggcg	gccggcgggc	acgatgaagg	300
gcgtactgct	caacttcgag	gacgtcggcg	ggaagggtgtg	gcggttccgg	tattcggtact	360
ggaacagcag	ccagagct					378

<210> 1422

<211> 358

<212> DNA

<213> Eucalyptus grandis

<400> 1422

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agatgcggca	agagctgcag	gctgcgttgg	atgaattacc	tgaggcccg	catcaagaga	300
gggaacatct	cgcccagcga	agaagaacta	atcatccggc	ttcacaagct	attggggca	358

<210> 1423

<211> 373

<212> DNA

<213> Eucalyptus grandis

<400> 1423

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gagaggcaga	ggagggagaa	gcttaatcag	aggttttacg	ccctcagggc	cgtgggtcca	180
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cttaacatga	acctacaagc	tgacagagtct	gataaggagg	atttgaagaa	gcagttggat	300
gaactaaaga	agcgatcatc	ggataaagaa	tgtatcccgg	tggatcaaga	tcgcaagatg	360
gcaaaaccta	cgg					373

<210> 1424

<211> 425

<212> DNA

<213> Eucalyptus grandis

<400> 1424

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tgatcaagaa	gaagaccccg	agcccagcga	aggccctgat	tcgccctcct	cgggggaaga	180
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cccagaggga	tactaccgat	gcagtagctc	caagggtgc	cccgccagaa	agcaagtggg	420
gcgca						425

<210> 1425

<211> 434

<212> DNA

## &lt;213&gt; Eucalyptus grandis

## &lt;400&gt; 1425

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gcggcgagtc	gtcctcgctt	gataagagga	gcgatgtctt	cttggttggt	gcttgtaagg	180
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cagctagacc	tatgatcgag	ctcaataaaa	ttcaggggct	tgatgcaaca	taaatttcaa	420
tttgagtgat	tatg					434

## &lt;210&gt; 1426

## &lt;211&gt; 414

## &lt;212&gt; DNA

## &lt;213&gt; Eucalyptus grandis

## &lt;400&gt; 1426

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ccatttgacc	agttcccat	gtggggagac	accttcaaag	ctgacaaggt	taaaaatctt	120
gaggcatcgt	catctgtgat	tgtgcatgca	gtagatgatg	gattggacaa	gaagtttgaa	180
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cctgacaagg	tacagagacg	tctagcacag	aaccgtgaag	ctgctcgaaa	aagccgtctg	300
cggagaaga	aatatgtaca	acaactagaa	tcaagccgct	tgaagctagc	acagttggag	360
ctggaactcg	ggagagctag	gcagcaaggg	ttgctcttgg	gaaatggatt	cgac	414

## &lt;210&gt; 1427

## &lt;211&gt; 332

## &lt;212&gt; DNA

## &lt;213&gt; Eucalyptus grandis

## &lt;400&gt; 1427

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ggaccccaag	ccctcgagcg	tggtgacccc	gctgttggcg	gagccgctgg	cgccgccatc	300
gtagtgga	cgcttggtgc	cgcccagggc	ct			332

## &lt;210&gt; 1428

## &lt;211&gt; 318

## &lt;212&gt; DNA

## &lt;213&gt; Eucalyptus grandis

## &lt;400&gt; 1428

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cctcagcttc	cgctgccgcc	gccccctctg	ccagccggag	ggggcggtac	aggctccatc	120
cggccaggtt	ccatggccga	tcgggctcgg	ctggccaagg	ttccgcagcc	cgagcctgga	180
cttaagtgcc	cccgatgcga	ctcgacaaac	accaagttct	gctacttcaa	caactacagc	240
ctcacgcaac	cgcgccactt	ctgcaagagt	tgccgcgggt	actggaccgg	aggaggtgcg	300
tgaggaacgt	gccagtgc					318

## &lt;210&gt; 1429

## &lt;211&gt; 349

## &lt;212&gt; DNA

## &lt;213&gt; Eucalyptus grandis

## &lt;400&gt; 1429

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agaaagattc	acaagaacta	aaccgtcgct	gatcttaggc	acgagtcaag	ctgcttgagt	120
ggcgccatcc	ttgcagttgt	cgagatccga	ttcattgact	gaagaaggcg	ccttgataaa	180

tgctgactgt	cgagatgttt	ccccgagaaa	cttcaaagag	agtgggtgcag	gttcattctc	240
agcaagactt	agctgagaca	ttccaactat	ttgggtcgata	tttaggggtt	cttttgggaat	300
tactgggatt	ggcttttagca	cacggtgatg	agatgtctcc	accaccctt		349

<210> 1430  
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 <212> DNA  
 <213> Eucalyptus grandis

<400> 1430						
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cgccgtcagc	cccaggcccc	agggcggcgc	caaggagatc	cgcttccgcg	gcgtcaggaa	180
gcggccgtgg	ggcgcgtacg	ccgccgagat	ccgccgaccca	ggcaagaaga	cccgcgtctg	240
gctcggcacc	ttcgacaccg	ccgaggaggc	cgcccgcgcc	tacgacacgg	cggcgcgtga	300
gttccgcggc	gccaaggcca	agaccaactt	ccccaccgcc	gacgagctcg		350

<210> 1431  
 <211> 350  
 <212> DNA  
 <213> Eucalyptus grandis

<400> 1431						
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gcttgctcaa	aaccgtgaag	ctgccagaaa	gagtagatta	aggaaaaagg	catatgtcca	180
acaactggag	agtagcaggc	tgaactcac	ccaactagag	caagaactgc	agcgagcccg	240
tcagcagggc	attttcattt	caggtagtgg	agaacaatcc	cactcaatga	gcggaaatgg	300
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<210> 1432  
 <211> 317  
 <212> DNA  
 <213> Eucalyptus grandis

<400> 1432						
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gtcttccggt	ggaacataca	gtactggttg	tagtanaggc	tgtgggtggca	ggtcagacta	180
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<210> 1433  
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 <212> DNA  
 <213> Eucalyptus grandis

<400> 1433						
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<210> 1434  
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 <212> DNA  
 <213> Eucalyptus grandis

&lt;400&gt; 1434

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ctcttctaga	cggcgtagtg	cgatttggca	ccacggaaaag	ggttcaagag	gacatttcac	180
tcgtcaatca	tgtcaaaacc	ttcttcgttg				210

&lt;210&gt; 1435

&lt;211&gt; 557

&lt;212&gt; DNA

&lt;213&gt; Eucalyptus grandis

&lt;400&gt; 1435

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tccccagaga	ccgccgtgga	tgtacaaga	gaagaaagac	ttcggataca	cagataagga	180
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&lt;210&gt; 1436

&lt;211&gt; 438

&lt;212&gt; DNA

&lt;213&gt; Eucalyptus grandis

&lt;400&gt; 1436

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cgccccctcc	gccgcgcgcg	ccccggccgc	cagcgggggtg	agcgtgtcgg	agggcggtggg	420
gtccacgcac	acgcagag					438

&lt;210&gt; 1437

&lt;211&gt; 327

&lt;212&gt; DNA

&lt;213&gt; Eucalyptus grandis

&lt;400&gt; 1437

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ctcggcacct	tcgacacagc	cgaggaggcc	gccgcgccta	cgacaccgcc	gcccgcgagt	300
tccgcggcgc	caaggccaag	accaact				327

&lt;210&gt; 1438

&lt;211&gt; 360

&lt;212&gt; DNA

&lt;213&gt; Eucalyptus grandis

&lt;400&gt; 1438

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cccgttttaa	gattgttcaa	ggtacttgtc	ctcgtcactt	ccactgcctt	ggaatgtttc	240
agcattttctt	cttctaccct	cctttggcag	gttgcaagtt	caagtttctt	ctcggccagt	300
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&lt;210&gt; 1439

&lt;211&gt; 269

&lt;212&gt; DNA

&lt;213&gt; Eucalyptus grandis

&lt;400&gt; 1439

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tccgagaccc	caaccggaag	ggctcgcgc				269

&lt;210&gt; 1440

&lt;211&gt; 351

&lt;212&gt; DNA

&lt;213&gt; Eucalyptus grandis

&lt;400&gt; 1440

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gaactgggac	tggcagcagg	atccatttca	cagcctcctg	ccaagcgtca	g	351

&lt;210&gt; 1441

&lt;211&gt; 476

&lt;212&gt; DNA

&lt;213&gt; Eucalyptus grandis

&lt;400&gt; 1441

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&lt;210&gt; 1442

&lt;211&gt; 315

&lt;212&gt; DNA

&lt;213&gt; Eucalyptus grandis

&lt;400&gt; 1442

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&lt;210&gt; 1443

&lt;211&gt; 338

&lt;212&gt; DNA

&lt;213&gt; Eucalyptus grandis



&lt;400&gt; 1443

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&lt;210&gt; 1444

&lt;211&gt; 409

&lt;212&gt; DNA

&lt;213&gt; Eucalyptus grandis

&lt;400&gt; 1444

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caagaagacg	aatgaacgaa	aagcgggtag	gcaagacggt	tagcactaca	ggttctttcg	360
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&lt;210&gt; 1445

&lt;211&gt; 304

&lt;212&gt; DNA

&lt;213&gt; Eucalyptus grandis

&lt;400&gt; 1445

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acac						304

&lt;210&gt; 1446

&lt;211&gt; 332

&lt;212&gt; DNA

&lt;213&gt; Eucalyptus grandis

&lt;400&gt; 1446

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&lt;210&gt; 1447

&lt;211&gt; 349

&lt;212&gt; DNA

&lt;213&gt; Eucalyptus grandis

&lt;400&gt; 1447

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atcgggccctg	ccggcagtgg	caagtgcact	tattgctcga	gtttgtatca	acattgtgaa	300
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 <212> DNA  
 <213> Eucalyptus grandis

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 gcagcatgat tccgagccga gccgcccggg cgcgcgacga cgtcccggaa gtcgcccgat 180  
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 gcccaagtac aggggcgtgc ggaggcggcg gtggggcaag tacaccgccg agatcagcga 300  
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<210> 1449  
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 <212> DNA  
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 <212> DNA  
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<400> 1450  
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 <212> DNA  
 <213> Eucalyptus grandis

<400> 1451  
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<400> 1452

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&lt;210&gt; 1453

&lt;211&gt; 378

&lt;212&gt; DNA

&lt;213&gt; Eucalyptus grandis

&lt;400&gt; 1453

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&lt;210&gt; 1454

&lt;211&gt; 339

&lt;212&gt; DNA

&lt;213&gt; Eucalyptus grandis

&lt;400&gt; 1454

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&lt;210&gt; 1455

&lt;211&gt; 372

&lt;212&gt; DNA

&lt;213&gt; Eucalyptus grandis

&lt;400&gt; 1455

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&lt;210&gt; 1456

&lt;211&gt; 436

&lt;212&gt; DNA

&lt;213&gt; Eucalyptus grandis

&lt;400&gt; 1456

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 <212> DNA  
 <213> Eucalyptus grandis

<400> 1457						
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<210> 1458  
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 <212> DNA  
 <213> Eucalyptus grandis

<400> 1458						
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<210> 1459  
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<400> 1459						
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<210> 1460  
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<400> 1460						
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gat						363

<210> 1461  
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 <212> DNA  
 <213> Eucalyptus grandis

<400> 1461

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&lt;210&gt; 1462

&lt;211&gt; 209

&lt;212&gt; DNA

&lt;213&gt; Eucalyptus grandis

&lt;400&gt; 1462

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&lt;210&gt; 1463

&lt;211&gt; 423

&lt;212&gt; DNA

&lt;213&gt; Eucalyptus grandis

&lt;400&gt; 1463

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tca					cccagtatta	423

&lt;210&gt; 1464

&lt;211&gt; 379

&lt;212&gt; DNA

&lt;213&gt; Eucalyptus grandis

&lt;400&gt; 1464

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&lt;210&gt; 1465

&lt;211&gt; 334

&lt;212&gt; DNA

&lt;213&gt; Eucalyptus grandis

&lt;400&gt; 1465

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&lt;210&gt; 1466

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 <212> DNA  
 <213> Eucalyptus grandis

<400> 1466  
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<210> 1467  
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 <212> DNA  
 <213> Eucalyptus grandis

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<210> 1468  
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 <212> DNA  
 <213> Eucalyptus grandis

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<210> 1469  
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 <212> DNA  
 <213> Eucalyptus grandis

<400> 1469  
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<210> 1470  
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&lt;210&gt; 1471

&lt;211&gt; 530

&lt;212&gt; DNA

&lt;213&gt; Eucalyptus grandis

&lt;400&gt; 1471

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&lt;210&gt; 1472

&lt;211&gt; 381

&lt;212&gt; DNA

&lt;213&gt; Eucalyptus grandis

&lt;400&gt; 1472

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&lt;210&gt; 1473

&lt;211&gt; 567

&lt;212&gt; DNA

&lt;213&gt; Eucalyptus grandis

&lt;400&gt; 1473

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&lt;210&gt; 1474

&lt;211&gt; 423

&lt;212&gt; DNA

&lt;213&gt; Eucalyptus grandis

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 gca 423

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 <212> DNA  
 <213> *Eucalyptus grandis*

<400> 1475  
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 <213> *Eucalyptus grandis*

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 <212> DNA  
 <213> *Eucalyptus grandis*

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 tggagctcca tctgtgaagt gtgcgatctg tcaatttatt actaacgttg gtgcggggcaa 180  
 tccaaggggt tctgttccac cacaagaat cgatggacca ccgtcaggga caacaccgtc 240  
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<210> 1478  
 <211> 408  
 <212> DNA  
 <213> *Eucalyptus grandis*

<400> 1478  
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 <212> DNA  
 <213> Eucalyptus grandis

<400> 1479  
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 <212> DNA  
 <213> Eucalyptus grandis

<400> 1480  
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 <212> DNA  
 <213> Eucalyptus grandis

<400> 1481  
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<210> 1482  
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 <213> Eucalyptus grandis

<400> 1482  
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<210> 1483  
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 <212> DNA

&lt;213&gt; Eucalyptus grandis

&lt;400&gt; 1483

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&lt;210&gt; 1484

&lt;211&gt; 335

&lt;212&gt; DNA

&lt;213&gt; Eucalyptus grandis

&lt;400&gt; 1484

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&lt;210&gt; 1485

&lt;211&gt; 371

&lt;212&gt; DNA

&lt;213&gt; Eucalyptus grandis

&lt;400&gt; 1485

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&lt;210&gt; 1486

&lt;211&gt; 373

&lt;212&gt; DNA

&lt;213&gt; Eucalyptus grandis

&lt;400&gt; 1486

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&lt;210&gt; 1487

&lt;211&gt; 319

&lt;212&gt; DNA

&lt;213&gt; Eucalyptus grandis

&lt;400&gt; 1487

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&lt;210&gt; 1488

&lt;211&gt; 384

&lt;212&gt; DNA

&lt;213&gt; Eucalyptus grandis

&lt;400&gt; 1488

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&lt;210&gt; 1489

&lt;211&gt; 411

&lt;212&gt; DNA

&lt;213&gt; Eucalyptus grandis

&lt;400&gt; 1489

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&lt;210&gt; 1490

&lt;211&gt; 396

&lt;212&gt; DNA

&lt;213&gt; Eucalyptus grandis

&lt;400&gt; 1490

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&lt;210&gt; 1491

&lt;211&gt; 188

&lt;212&gt; DNA

&lt;213&gt; Eucalyptus grandis

&lt;400&gt; 1491

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cgtgactttg	tgactacaag	gactcctact	caagtggcaa	gccatgccca	gaagtattat	180
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&lt;210&gt; 1492

&lt;211&gt; 461

&lt;212&gt; DNA

&lt;213&gt; Eucalyptus grandis

&lt;400&gt; 1492

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&lt;210&gt; 1493

&lt;211&gt; 445

&lt;212&gt; DNA

&lt;213&gt; Eucalyptus grandis

&lt;400&gt; 1493

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&lt;210&gt; 1494

&lt;211&gt; 419

&lt;212&gt; DNA

&lt;213&gt; Eucalyptus grandis

&lt;400&gt; 1494

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&lt;210&gt; 1495

&lt;211&gt; 388

&lt;212&gt; DNA

&lt;213&gt; Eucalyptus grandis

&lt;400&gt; 1495

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&lt;210&gt; 1496

&lt;211&gt; 417

&lt;212&gt; DNA

&lt;213&gt; Eucalyptus grandis

&lt;400&gt; 1496

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cgacgacagt	ggtaagtccc	aagatgtcga	ggtgagaaaa	gggccgtgga	cgatggaaga	120
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&lt;210&gt; 1497

&lt;211&gt; 404

&lt;212&gt; DNA

&lt;213&gt; Eucalyptus grandis

&lt;400&gt; 1497

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&lt;210&gt; 1498

&lt;211&gt; 340

&lt;212&gt; DNA

&lt;213&gt; Eucalyptus grandis

&lt;400&gt; 1498

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&lt;210&gt; 1499

&lt;211&gt; 311

&lt;212&gt; DNA

&lt;213&gt; Eucalyptus grandis

&lt;400&gt; 1499

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acggacaatg	a					311

&lt;210&gt; 1500

&lt;211&gt; 324

&lt;212&gt; DNA

&lt;213&gt; Eucalyptus grandis

&lt;400&gt; 1500

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&lt;210&gt; 1501

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<400> 1501  
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 <213> Eucalyptus grandis

<400> 1503  
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 aagaactact ggaataccca tttgaagaag aagctgaaga agcttcaagg ccaagcaaat 240  
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 cccaagggcc ag 312

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 <212> DNA  
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<210> 1505  
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 <212> DNA  
 <213> Eucalyptus grandis

<400> 1505  
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&lt;210&gt; 1506

&lt;211&gt; 512

&lt;212&gt; DNA

&lt;213&gt; Eucalyptus grandis

&lt;400&gt; 1506

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tccttgaggt	taagctgtca	gcaggaatat	ttgagactta	aggcacgtta	cgaagcccta	180
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agatgggtca	ttgaagcaga	tcagatcacg	aagagtatgt	aaattatatt	cacgaattct	420
atctaagtca	catcctgagt	tattgngaatt	acaagttact	gnngtcaatc	gctgggatta	480
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&lt;210&gt; 1507

&lt;211&gt; 342

&lt;212&gt; DNA

&lt;213&gt; Eucalyptus grandis

&lt;400&gt; 1507

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taagcagtca	gcaggaatat	ctgaaactta	aggcacgcta	tgaagcccta	cagcgaacgc	300
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&lt;210&gt; 1508

&lt;211&gt; 413

&lt;212&gt; DNA

&lt;213&gt; Eucalyptus grandis

&lt;400&gt; 1508

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&lt;210&gt; 1509

&lt;211&gt; 296

&lt;212&gt; DNA

&lt;213&gt; Eucalyptus grandis

&lt;400&gt; 1509

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gaaaggaaac	ccgtatccca	gctactatag	atgcaccagt	gtcaagtgca	atgtgcggaa	180
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 <213> Eucalyptus grandis

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 cagatattgg gccacgattt gaacgagctg agctacgcag aactgcacag tctccgagca 360  
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 <213> Eucalyptus grandis



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 caagaaaatg tgccgagggc tattttccgt ctatttctca gcttgaagga ttgccactca 240  
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 <212> DNA  
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<210> 1518  
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 <213> Eucalyptus grandis

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<210> 1519  
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 <212> DNA  
 <213> Eucalyptus grandis

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 aaaatgtacc tatgataagt ggttattcga gtctcct 337

<210> 1520

<211> 439

<212> DNA

<213> Eucalyptus grandis

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<211> 448

<212> DNA

<213> Eucalyptus grandis

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<210> 1522

<211> 439

<212> DNA

<213> Eucalyptus grandis

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<210> 1523

<211> 361

<212> DNA

<213> Eucalyptus grandis

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&lt;210&gt; 1524

&lt;211&gt; 422

&lt;212&gt; DNA

&lt;213&gt; Eucalyptus grandis

&lt;400&gt; 1524

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&lt;210&gt; 1525

&lt;211&gt; 443

&lt;212&gt; DNA

&lt;213&gt; Eucalyptus grandis

&lt;400&gt; 1525

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&lt;210&gt; 1526

&lt;211&gt; 379

&lt;212&gt; DNA

&lt;213&gt; Eucalyptus grandis

&lt;400&gt; 1526

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&lt;210&gt; 1527

&lt;211&gt; 419

&lt;212&gt; DNA

&lt;213&gt; Eucalyptus grandis

&lt;400&gt; 1527

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 <212> DNA  
 <213> Eucalyptus grandis

<400> 1529						
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 <212> DNA  
 <213> Eucalyptus grandis

<400> 1531						
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<213> Eucalyptus grandis

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<212> DNA  
<213> Eucalyptus grandis

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<212> DNA  
<213> Eucalyptus grandis

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&lt;210&gt; 1537

&lt;211&gt; 266

&lt;212&gt; DNA

&lt;213&gt; Pinus radiata

&lt;400&gt; 1537

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&lt;210&gt; 1538

&lt;211&gt; 426

&lt;212&gt; DNA

&lt;213&gt; Pinus radiata

&lt;400&gt; 1538

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&lt;210&gt; 1539

&lt;211&gt; 447

&lt;212&gt; DNA

&lt;213&gt; Pinus radiata

&lt;400&gt; 1539

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&lt;210&gt; 1540

&lt;211&gt; 382

&lt;212&gt; DNA

&lt;213&gt; Pinus radiata

&lt;400&gt; 1540

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 <212> DNA  
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&lt;212&gt; DNA

&lt;213&gt; Pinus radiata

&lt;400&gt; 1545

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&lt;210&gt; 1546

&lt;211&gt; 390

&lt;212&gt; DNA

&lt;213&gt; Pinus radiata

&lt;400&gt; 1546

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&lt;210&gt; 1547

&lt;211&gt; 447

&lt;212&gt; DNA

&lt;213&gt; Pinus radiata

&lt;400&gt; 1547

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&lt;210&gt; 1548

&lt;211&gt; 357

&lt;212&gt; DNA

&lt;213&gt; Pinus radiata

&lt;400&gt; 1548

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&lt;210&gt; 1549

&lt;211&gt; 395

&lt;212&gt; DNA

&lt;213&gt; Pinus radiata

&lt;400&gt; 1549

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 <212> DNA  
 <213> Pinus radiata

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<211> 392  
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<210> 1557  
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 <212> DNA

&lt;213&gt; Pinus radiata

&lt;400&gt; 1557

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&lt;210&gt; 1558

&lt;211&gt; 478

&lt;212&gt; DNA

&lt;213&gt; Pinus radiata

&lt;400&gt; 1558

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&lt;210&gt; 1559

&lt;211&gt; 389

&lt;212&gt; DNA

&lt;213&gt; Pinus radiata

&lt;400&gt; 1559

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&lt;210&gt; 1560

&lt;211&gt; 354

&lt;212&gt; DNA

&lt;213&gt; Pinus radiata

&lt;400&gt; 1560

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&lt;210&gt; 1561

&lt;211&gt; 248

&lt;212&gt; DNA

&lt;213&gt; Pinus radiata

&lt;400&gt; 1561

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ggaaaacc 248

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<212> DNA  
<213> Pinus radiata

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aactatcttc gttcagatat caagcatgga aacatttctc cggaagaaga ggaactcctc 300  
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<212> DNA  
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aggaagagag ggagagcccc tgcagacaag gaacacaagc gtctcaaaag attgcttagg 300  
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<212> DNA  
<213> Pinus radiata

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<212> DNA  
<213> Pinus radiata

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<212> DNA  
<213> Pinus radiata

&lt;400&gt; 1566

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&lt;210&gt; 1567

&lt;211&gt; 353

&lt;212&gt; DNA

&lt;213&gt; Pinus radiata

&lt;400&gt; 1567

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&lt;210&gt; 1568

&lt;211&gt; 436

&lt;212&gt; DNA

&lt;213&gt; Pinus radiata

&lt;400&gt; 1568

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&lt;210&gt; 1569

&lt;211&gt; 349

&lt;212&gt; DNA

&lt;213&gt; Pinus radiata

&lt;400&gt; 1569

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&lt;210&gt; 1570

&lt;211&gt; 580

&lt;212&gt; DNA

&lt;213&gt; Pinus radiata

&lt;400&gt; 1570

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&lt;210&gt; 1571

&lt;211&gt; 469

&lt;212&gt; DNA

&lt;213&gt; Pinus radiata

&lt;400&gt; 1571

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&lt;210&gt; 1572

&lt;211&gt; 337

&lt;212&gt; DNA

&lt;213&gt; Pinus radiata

&lt;400&gt; 1572

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&lt;210&gt; 1573

&lt;211&gt; 341

&lt;212&gt; DNA

&lt;213&gt; Pinus radiata

&lt;400&gt; 1573

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&lt;210&gt; 1574

&lt;211&gt; 479

&lt;212&gt; DNA

&lt;213&gt; Pinus radiata

&lt;400&gt; 1574

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 ttgaagtac cagacctcaa agaagagaac aagggaattgc ga 402

<210> 1576  
 <211> 355  
 <212> DNA  
 <213> Pinus radiata

<400> 1576  
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 gtcgtccagg tggacaacga tgcccttttc ggggtcccgg cagcgccctc gtagcgtgga 180  
 gttccagtgg ttcttgatcg cgttgctcgg gcggccgggg agggctcggg caattgttgc 240  
 ccatttgttg ccgtgctgcg cgtgggcctg cagaatagca gcctcctcgg acggggtaaa 300  
 aggtctgtgc tccacctgag ggctcagctg attgcaccac cgtagcctgc acgat 355

<210> 1577  
 <211> 463  
 <212> DNA  
 <213> Pinus radiata

<400> 1577  
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 ttgaagaggg tcaggggtcat gaggattttg atcctgctag ccttcgagag catgaggagt 180  
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 gtctcaattt catgaagagg aaagaacagc ttcaaagaca tatgaggaag tgtgatctga 360  
 agcatccacc tggagatgaa atatatcgca atggaaacct ctccatgttt gaggttgatg 420  
 gaaagaagaa caagatatat gggcagaacc tctgctatct ggc 463

<210> 1578  
 <211> 343  
 <212> DNA  
 <213> Pinus radiata

<400> 1578  
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 ttaggattga tggagcagca cccttggcga ccgcagagag gacttctga acgctctgtn 120  
 tctgttcttc gtgcatgggt gtttgagcat tttctgcacc cgtatccaac tgatgcagat 180  
 aagcatatat tggctaagca aactggcctt acaagaagtc aggtatcaaa ttggtttata 240  
 aatgccaggg ttagactatg gaagcccatg gtggaggaga tgtacatgga agaactcaag 300  
 gaagaaaaag tggaccaagg tacacacaat tctgaagctg aaa 343

<210> 1579  
 <211> 530  
 <212> DNA  
 <213> Pinus radiata

&lt;400&gt; 1579

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tgaggtcaat	gaattcaaca	ttatgaaaag	aagcaattca	ggggttgat	atgaagataa	180
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tgagaaactg	gcagagcttg	caacgggtgga	tccaaaacgt	gtcaaaaagg	atattggcta	480
atcgccagtc	ggctgcacgc	tccaaggaaa	gaaagatgcg	ctatatctca		530

&lt;210&gt; 1580

&lt;211&gt; 561

&lt;212&gt; DNA

&lt;213&gt; Pinus radiata

&lt;400&gt; 1580

ctccactaac	tccttcattt	caacactcac	agcatcggat	ccgtgcgata	aaacttctat	60
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gaagcccatt	aagggtctct	cacatccaag	aggctattac	aaatgcagca	cagtgaagag	360
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cgccattatt	acagcgggat	g				561

&lt;210&gt; 1581

&lt;211&gt; 357

&lt;212&gt; DNA

&lt;213&gt; Pinus radiata

&lt;400&gt; 1581

cccagaacgg	cataagcact	gacaaaggat	tttaagatct	gtgcgatgtg	ggatatggat	60
ttgccttccc	aagggtcaag	tttgagttca	tctggttcag	tttggactat	acaacagaac	120
aaaattttttg	aaaatgctct	agctgatttt	gataaagaca	ccccagataa	atgggagaaa	180
gtggcagcca	ggctgcctgg	aaaaactgct	acggatgtta	gaaagcatta	tgaagatctc	240
gtggaagatg	ttacttgtat	tgaagctgcc	gcgttgccct	acccacgtac	agtaactctt	300
cctgttcaca	tgaatggtta	gaaaaatcag	gcgctatgca	cggattgaag	caacaat	357

&lt;210&gt; 1582

&lt;211&gt; 522

&lt;212&gt; DNA

&lt;213&gt; Pinus radiata

&lt;400&gt; 1582

gcgagctagg	cggtagctaa	gcaggagaga	gatttatattt	cttgtgtttc	agagtttttg	60
cagtgcgtct	aaatggcgg	agaaaccatg	cggatgtcga	gggtgagact	aggaagttgc	120
gaggacgaat	cccgggccgt	caaagaaacc	catttcaggg	gcgtgcgaaa	acggccgtgg	180
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cacaaagcta	agaccaattt	ttctgtcacc	gccgactacc	acaataacgc	tggtgcgccc	360
gcacttttct	ggactcaggc	gctgcattct	cagcagccgg	atctgaacgc	cgcggttttt	420
gcttttcgtat	caaacaagag	acgtgaagtt	tcctctggaa	gcgaccggct	cgagttcgaa	480
tctcccaaca	attctcttca	cgctgcacct	ctgagcaggc	gg		522

&lt;210&gt; 1583

&lt;211&gt; 530

&lt;212&gt; DNA



&lt;213&gt; Pinus radiata

&lt;400&gt; 1583

ggcaggagtt	cccgcagct	ttaagaaccc	ttccctttgt	gttagacctc	cagggttcctc	60
aggtagcgag	tctctacatc	gcgtgacgtt	caaggggagac	gggatattca	gagtcggatc	120
gccggcggtg	ccgtagacac	catacagatg	gcgagagtgg	gtgtaaaaat	gaagatcgga	180
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agaaatctcc	gcggggccaa	ggcgaaaact	aattttcttc	tgtctcccca	caatgacatt	420
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&lt;210&gt; 1584

&lt;211&gt; 435

&lt;212&gt; DNA

&lt;213&gt; Pinus radiata

&lt;400&gt; 1584

gcattgctct	gctcgaacac	atagtagtct	gatctctgcg	cttcgagcac	tacgagaatt	60
gcttcaccat	taccttcac	atccaccaat	ggcgggccgaa	gatttttaatg	acaagaatgc	120
tgtattcaga	aagctccggg	ccaaacccga	caacaagatg	tgctttgact	gtaatacaag	180
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tcctcgtagt	cttggtgttc	acattagctt	tgtcagatct	gtaaacctgg	actcatggac	300
tcctgaacag	ttgaaggcca	tgagctttgg	tggaatggc	cgaggacata	cattctttaa	360
gcagcatggt	tggaatgatg	gaggtaaaat	agaatcgaaa	tacacatcaa	gagcagctga	420
gctatataga	cagct					435

&lt;210&gt; 1585

&lt;211&gt; 362

&lt;212&gt; DNA

&lt;213&gt; Pinus radiata

&lt;400&gt; 1585

gaaagacttg	cagcttacat	ggtggagggt	cttgctgcac	gaatagcatc	ttcaggaaac	60
ggaatataca	aagctttgaa	ttgtaaaagcg	ccaccaagca	ctgatacttt	atctgccatg	120
caaataattat	ttgaagtttg	cccatatttc	aaatttggtt	gcatgggtggc	caatgggtgca	180
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ggaagtcagt	acataagcct	cttaaatgtc	cttgcagaaa	ggcctgggtgg	gcctccacat	300
ttgcgcataa	ctgcagtaga	tgattctgaa	gatgtaagat	atatttcttg	gggattggat	360
aa						362

&lt;210&gt; 1586

&lt;211&gt; 362

&lt;212&gt; DNA

&lt;213&gt; Pinus radiata

&lt;400&gt; 1586

caggagccga	aaagacaaac	tacgaacaaa	atccctgtcc	aaataacaag	aaaaatggca	60
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ga						362

&lt;210&gt; 1587

&lt;211&gt; 389

&lt;212&gt; DNA

&lt;213&gt; Pinus radiata

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 tttccttgga ttcgaaactcg agatctcctg aatattatgg cacaggagag ctggaaccag 180  
 gaggagaccg ggtgccaagt cccggaaggg ctcatgcgct gtgccaacaa ctgtggcttc 240  
 ttcggaagtc cggccaccat gagtctctgc tccaagtgtt accgcgaatt cgtgctgctc 300  
 aactccccta aatcgtcctt cgataagccg caacagcagc tgccgatgca ggacgaggta 360  
 tctatcccga gacccgacgt tgctgctga 389

<210> 1588  
 <211> 416  
 <212> DNA  
 <213> Pinus radiata

<400> 1588  
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 atggccacta tccgttttag tccgagttca aggggtccgt ggttcgaatc ccgcagaggg 120  
 cattttcctt cgcgcctgca gcccggggcg tgaccgtcgt cgcataaggc aagaaggccg 180  
 ttgccgcgct caaagggaat tcacaggctcg aggggtgtgt cagtctctcg caggaagaca 240  
 ggggtccac aacagtgaag gtccgtttga caggactgac tcctgggaag catggctttc 300  
 atctacatga gtttggtgac acaaccaatg gctgcatatc aacaggagca cattttaatc 360  
 caaaaaaatt gacacatggt gtcctgagg atgatgtacg ccatgcgggg gacctg 416

<210> 1589  
 <211> 507  
 <212> DNA  
 <213> Pinus radiata

<400> 1589  
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 caaacaagga catatagctg ccgagtgtac gaatgagaag gcatgcaaca actgtcgcaa 180  
 gaccgggcat cttgctcgtg actgcaccaa caaccagtt tgtaatttgt gcaatatatc 240  
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 atttattgac gataggcgtg gaagatttaa tgacataatc tgtaggacat gcaacgagcc 360  
 agggcatacc agtagggagt gcaactggaat tctcatctgc cacaactgtg gtggccgtgg 420  
 acatgttgca tacgaatgcc cctctggctg tgtgatgctg cgggacatgc gcaggcattg 480  
 atgctgcagt ttctacacca cctgact 507

<210> 1590  
 <211> 370  
 <212> DNA  
 <213> Pinus radiata

<400> 1590  
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 agacatcgtc acagaaaaat caggcatccg gatcaagtga tggaggtagt tttgattgca 180  
 atatttgctt agaattagcc caagatcctg tggtgactca atgtgggtcat cttttttgtt 240  
 ggccttgctt ataccaatgg ctacagatgc actccatatc aaaagaatgc cctgtttgca 300  
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 ctgatccaag 370

<210> 1591  
 <211> 308  
 <212> DNA  
 <213> Pinus radiata

<400> 1591  
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 aatttcgaag atggttagat cttcttgcta ttcaaagcaa ggtcataggc gtgggatttg 120

gacccctatg	gaggatatga	ttctctctga	atacattcga	attcatggca	gtgatggatg	180
gaaaaatatc	gctaaacgag	caggtcttaa	acgatgtgga	aagagttgca	gattacgttg	240
gttgaactat	cttcgccccg	acattaaacg	tggtaacatt	tctcctgatg	aggaggacct	300
cattatta						308

<210> 1592  
 <211> 361  
 <212> DNA  
 <213> Pinus radiata

<400> 1592						
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catggaagtt	gagtgtcgca	gccctcggtc	ttccgctcag	gggtgtgagg	ttgacatgaa	180
gccaacgatg	gtggtggaag	atacgcttaa	tcaaggatgc	atgcaatatg	gatgttcaca	240
ctaccgccgg	agatgccaaa	taagggctcc	gtgttgtaat	gaagtctttg	actgtaggca	300
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<210> 1593  
 <211> 378  
 <212> DNA  
 <213> Pinus radiata

<400> 1593						
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acgaggatga	gaaggctact	gcattcaggg	atatcgcacc	ccaagcacct	actcacatca	180
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tacatattca	tctactcg					378

<210> 1594  
 <211> 333  
 <212> DNA  
 <213> Pinus radiata

<400> 1594						
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tcgaaagctg	aaggcgaagt	ctgaaaaaaa	gatttgtttt	gattgcaatg	ctaaaagtcc	120
cagttggggc	tccgtgacat	atggagtatt	cattttgtctt	gattgttcag	caatgcatcg	180
gagtcttggt	gttcatgtca	gttttgtgag	gtctacaaat	ctcgatacat	ggaccatgga	240
gcagttgaaa	ttgatgagct	ttggtggtaa	tggccgtgca	caattattct	ttaagcaaca	300
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<210> 1595  
 <211> 356  
 <212> DNA  
 <213> Pinus radiata

<400> 1595						
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aaataacatg	cagaggcatg	aggagatccg	aaggctaacg	aattgccgtc	acatcttcca	300
cagagactgt	atggacaaat	gggttgatca	tgaccagaac	gcctgtcctc	tctgca	356

<210> 1596  
 <211> 378

&lt;212&gt; DNA

&lt;213&gt; Pinus radiata

&lt;400&gt; 1596

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cagtgcgatg	cctgcgagca	ggcagctgct	tcagtgatat	gttgtgcaga	cnaggctgct	180
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gcagccatcg	ttttctgtct	cgaagatcgt	gctatgctgt	gccaaagactg	cgatgagtcc	360
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&lt;210&gt; 1597

&lt;211&gt; 387

&lt;212&gt; DNA

&lt;213&gt; Pinus radiata

&lt;400&gt; 1597

tcgataatag	cagggagagt	ccccggccga	acagacaacg	aaataaagaa	ctactggaac	60
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attgcaagaa	tcagagaatt	taaaagctct	aatactatca	gctcctcttc	tcgacttaat	360
gcacagattg	agccaaagtc	cagagag				387

&lt;210&gt; 1598

&lt;211&gt; 276

&lt;212&gt; DNA

&lt;213&gt; Pinus radiata

&lt;400&gt; 1598

ggtttgcag	atttggtgac	gagaatgaga	aaaaccgagc	catgactgaa	atgaatgggtg	60
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ctagtcaggc	cttccagtc	gacaatgatc	caaataatac	aactatattt	gttggtgggt	240
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&lt;210&gt; 1599

&lt;211&gt; 374

&lt;212&gt; DNA

&lt;213&gt; Pinus radiata

&lt;400&gt; 1599

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aaaaggatga	agactttgtt	gcagaaaacg	atgatgtctg	atctccaaca	gatgagtcag	120
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agaaagccat	gactggattt	atgttctttt	ctcaagttga	aagagagaat	ctgaaaaaga	360
gtgacccaag	aatg					374

&lt;210&gt; 1600

&lt;211&gt; 334

&lt;212&gt; DNA

&lt;213&gt; Pinus radiata

&lt;400&gt; 1600

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ggaagaggag	tttaattctga	tcagggaat	tgttgatgac	taccctctga	tagccatgga	180

cacagagttc	cctggcatag	ttgtgcgacc	cgtgggcaaa	ttcaggaccg	tccaagaata	240
caattatgaa	accctaaggt	caaatgtaga	cgtattgaaa	ttaatacaat	tggggctgac	300
gttttctgat	gaaacggcaa	cctcccaaac	tgcg			334

&lt;210&gt; 1601

&lt;211&gt; 401

&lt;212&gt; DNA

&lt;213&gt; Pinus radiata

&lt;400&gt; 1601

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gtacacagtg	gtggaggaat	tcctggtagc	gccgaagccc	agtaatttat	catttgagga	300
agccgcgagc	ctgccgcttg	cgcttcagac	tgcgcagcag	ggcttcgata	caaccaatth	360
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&lt;210&gt; 1602

&lt;211&gt; 462

&lt;212&gt; DNA

&lt;213&gt; Pinus radiata

&lt;400&gt; 1602

ggttttgtcag	atttggtgac	gagaatgaga	aaaaccgagc	catgactgaa	atgaatgggtg	60
tttattgtct	ttcaagacct	atgcgaatta	atgaagctac	accaaagaag	tccttgggat	120
ttcaacaacc	ttattccatg	aaaggtaact	attacacaca	ggcatatggg	ggtgcagttg	180
ctagtcaggc	cttccagtca	gacaatgatc	caaataatac	aactatattt	gttgggtgggt	240
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tgtatgtgaa	aataccagtg	ggcaaaggat	gtggttttgt	acaattcacc	aacaggctct	360
ctgccgagga	agctttgcaa	agttacacgg	cactgtttatt	ggtcaacaat	ctattcgctt	420
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&lt;210&gt; 1603

&lt;211&gt; 358

&lt;212&gt; DNA

&lt;213&gt; Pinus radiata

&lt;400&gt; 1603

cagcgaagcc	gattttccaaa	gatggatagg	gagaaactca	tgaagatggc	tgggtgcagtc	60
cgactggcg	gaaagggtag	aatgcgaagg	aaaaagaaga	caattcataa	gactgccacg	120
gcagatgaca	agagacttca	aagtaccttg	aaaagaatag	gcgtgaataa	catccctgct	180
attgaagaag	tcaatatttt	taaggatgac	catgtttatt	attttgctaa	cccaaaggct	240
caggcttcta	ttgctgcca	cacatgggtg	gttagtgggt	catcgcaaac	aaaaaaactt	300
caagatcttt	tccttggtat	catcaatcag	cttgaccag	agagttttgc	caatctga	358

&lt;210&gt; 1604

&lt;211&gt; 358

&lt;212&gt; DNA

&lt;213&gt; Pinus radiata

&lt;400&gt; 1604

accaagctca	tcacatggcg	tccgagaagg	aagctgctct	tgctgccaca	ccaccagaag	60
atgataaacc	tacaatatth	gacaaaatac	tgcagaagga	gattcccagt	acagtggtht	120
acgaggatga	gaaggtactt	gcattcaggg	atatcgacc	ccaagcacct	actcacatca	180
ttatcatccc	caaagtaagg	gatggcttga	ctggcctatc	taaggcagaa	gagaggcatg	240
aggatattct	aggtcacctg	ctatacactg	caaaagttat	tgcaaaagcag	gaaggtttat	300
ctgatggctt	cagaattgtc	attaacgatg	gtcctactgg	atgccaatct	gtgtacca	358

&lt;210&gt; 1605

&lt;211&gt; 461

&lt;212&gt; DNA

&lt;213&gt; Pinus radiata

&lt;400&gt; 1605

gcggaacttta	ttgtaaaaga	gccaatgggtg	attgggtcatg	agtctgctgg	aataattgag	60
gaggttggca	gtgaagtga	acatctggtt	cctgggtgacc	gcgtagcttt	ggagcctgga	120
atatcggtgt	ggcgttgtga	ccaatgtaag	cgaggctcct	acaatttgtg	tcccgagatg	180
aagttttttg	caacacctcc	cgtgcatggt	tccttggcca	atcagattgt	tcctcctgca	240
gatttatgtt	tcaagttgcc	agataatgta	agtctcgagg	aaggtgccat	gtgtgaacca	300
ctcagtgttg	gggttcctgc	ttgtcgccgt	gcttctgtag	gtcctgagac	aaatgtcttg	360
gtaatggggc	aggtcctatc	ggccttgta	ccgtgctgtc	tgcacgtgca	tttggagctt	420
cacgaattat	tattgctgat	gtagatgaag	agcgtctgtc	a		461

&lt;210&gt; 1606

&lt;211&gt; 463

&lt;212&gt; DNA

&lt;213&gt; Pinus radiata

&lt;400&gt; 1606

gccactgttt	gtatgtgatc	tccgggcctt	gagcttatac	gtttttcagt	tgcagggttg	60
gagcctgtca	aattatactt	accatgattt	ggaaagaagc	tgcgacagtg	ctacacaagg	120
cccaacatct	ggagaagcca	cccttcatct	ttactgtatt	tatcgcatct	tttataggat	180
tcgccgcctt	ctcgtatctc	atcactaacc	gtagaactag	ggaattacga	ggaatcccgc	240
ccggcacctt	tggatggcct	ttgatcggcg	agacattaga	atttctggga	tgccagagaa	300
ggggaaggcc	ccaggatttc	tgtgaccgtc	gaacacagaa	gtatggaaac	gtgttcacca	360
cttcccttgt	gggcacccga	cagtgggtatt	atgtagtccc	caaggcaacc	gcttcttgtt	420
cgccaacgag	aacaaactgg	tggtaaattc	atggcccgc	tct		463

&lt;210&gt; 1607

&lt;211&gt; 410

&lt;212&gt; DNA

&lt;213&gt; Pinus radiata

&lt;400&gt; 1607

tcctgaacttt	gctaattgaga	cattcggccc	aagcttagtc	gttggttatcg	ctgccctgtt	60
cctctcaatg	ctatgctttt	tgtgtttcaa	tgccctgctc	cgctgcagac	ggctctacag	120
gcgatggcga	gtgggtgtcg	agccatcacc	caatatggat	gtcgaaagaa	ctgaatctgg	180
catcgagaaa	aaggatttag	aagcactttc	agccacagtt	taccgcaaag	cccacccctt	240
cagagccatg	gattgcccc	tttgctggc	ggaattcaaa	gaaggagaaa	aggtgagagt	300
attaccagaa	tgtgtgact	gtttccatgc	agattgcata	gacgcattgg	tgttttccaa	360
tgtttcttgt	ccttcatgtc	gacacactgt	cctttgcgca	ttgccgaaga		410

&lt;210&gt; 1608

&lt;211&gt; 357

&lt;212&gt; DNA

&lt;213&gt; Pinus radiata

&lt;400&gt; 1608

taataattgg	gtactgtgga	gattttcctg	tgcattgacc	attacaatgg	ctgagacagt	60
ggttttgaag	gttggcatgt	cttgcggaagg	ttgtgttgga	gctgtaaaac	gagttctcaa	120
taaaatggaa	ggtgtggaaa	catatgatgt	gaacttgaag	gagcaaaaag	taactgtgaa	180
agggaaactg	aagcctgatg	ccgttctgca	aactgtttca	aaaactggaa	aggaaacatc	240
cttctggcca	gaagagaagg	atgccaccac	gtgatgggtc	atattctcag	gtttaatata	300
gatatggaca	tatattgaac	atgctttttt	gaggcacttt	taataatatt	tctaata	357

&lt;210&gt; 1609

&lt;211&gt; 222

&lt;212&gt; DNA

&lt;213&gt; Pinus radiata

&lt;400&gt; 1609

ccaagaacgc	gggaaggaag	aggatgaatt	tgtacagagg	catcagacag	cgtccatggg	60
gaaaatgggc	tgcggagatt	cgagatccca	gaaagggggg	tagggtttgg	cttggaaacgt	120
ttaacacggc	cggaggaagc	tgccagggcc	tatgacgcag	aggcttagaa	gattagagga	180
aagaaagcta	agcttaactt	taccgatgat	tcattgctcag	ta		222

<210> 1610  
 <211> 302  
 <212> DNA  
 <213> Pinus radiata

<400> 1610						
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tcttataact	gaaatacaag	tgcttatgga	ctgtaatggc	tgcgttcaga	agatacgcag	120
agctctgcaa	actcttcaag	gcatttatga	cgtttacata	natttcccc	aacaaaaggt	180
gacagtggta	ggatgggttg	atccagacct	attaatgaag	gccataaaga	aagccgggaa	240
aagagccaaa	ctgtgcagcc	acgtacgcga	tgaagaaacg	gtcagagagag	ccgacccggc	300
gg						302

<210> 1611  
 <211> 268  
 <212> DNA  
 <213> Pinus radiata

<400> 1611						
gaatgaagtt	agatacggca	aagaaaggcc	ttcctccagg	caccatggga	tggcctctct	60
ttggagaaac	tcttgatttt	ctcagatatg	gtcaacaatt	tatcaaaaac	agaaaggcca	120
gatatggaga	tttgttcaag	actcacattc	taggatgccc	gacggtgata	tcgacggatc	180
cagctctcaa	cagatatatc	ttattgaatg	aaggccgagg	actaattcct	ggatacccg	240
agtctatgct	tgacacattg	ggaaaatg				268

<210> 1612  
 <211> 312  
 <212> DNA  
 <213> Pinus radiata

<400> 1612						
gctcactgga	ataaacactc	ttcgcatcca	gcccttcaaa	cttccccctc	tggcccccat	60
gatgcgaagg	tgcgcatgaa	ggctgtgggt	atctgtggca	gtgacgtcca	ctatttgagg	120
acattacggg	gtgcggactt	tattgtaaaa	gagccaatgg	tgatttgtca	tgagtctgct	180
ggaataattg	aggaggttgg	cagtgaagtg	aaacatctgg	ttcctgggtga	ccgcgtagct	240
ttggagcctg	gaatatcgtg	ttggcggttg	gaccaatgta	agcgaggctc	ctacaatttg	300
tgccccgaga	tg					312

<210> 1613  
 <211> 324  
 <212> DNA  
 <213> Pinus radiata

<400> 1613						
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tgtaacaaaa	cgtttgggag	caaaggattt	ctcaacattg	gctgaagcac	atgcatgtac	120
tgctgggtta	aagtcattga	caacatcagt	gactgcggtg	ggcattgaag	attgtcgtaa	180
gctttgtggg	ggacatgggt	acttgtgcag	tagtgggctt	ccagagctgt	ttgctgtata	240
tgttcctg	tgacatatg	aaggagataa	cacagttctg	cttctacagg	tagcaagatt	300
cttgatgaag	acagtccaac	aact				324

<210> 1614  
 <211> 395  
 <212> DNA  
 <213> Pinus radiata

<400> 1614  
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 aatttcgaag atggtttagat cttcttgcta ttcaaagcaa ggcatagggc gtgggatttg 120  
 gacccctatg gaggatatga ttctctctga atacattcga attcatggca gtgatggatg 180  
 gaaaaatatc gctaaacgag caggctcttaa acgatgtgga aagagttgca gattaccggt 240  
 ggttgaacta tcttcgcccc gacattaaac gtggtaacat ttctcctgat gaggaggacc 300  
 tcattattag gttgcatggc cttcttgga atcgaggac gactaccggg tcgaacagac 360  
 aacgaaatca agaattactg gcacactcat atgag 395

<210> 1615  
 <211> 231  
 <212> DNA  
 <213> Pinus radiata

<400> 1615  
 ttacattcaa ccaagctcat cacatggcgt cgganaagga agctgctctt gctgccacac 60  
 caccagaaga tgataaacct acaatatctg acnaaatact gcngaaagag attcccaatn 120  
 cagnggttta caaggatgag aaggctactn cnttcaggga tatngcnccc caagcaccta 180  
 ctccatcat tatcatcccc aaagtaaggg atggcttgac tggcctatct a 231

<210> 1616  
 <211> 396  
 <212> DNA  
 <213> Pinus radiata

<400> 1616  
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 gtagatctcc ttgctgctcc aaagaggggc tcaaccgcgg ggcttgacc aaaagggagg 120  
 atatgattct ctccgaatac gttcgaattc atggcgatgg tggatggaga aatcttccgg 180  
 aaaaagcagg tcttaagaga tgtggaaaga gttgcagact acgctgggtt aactatcttc 240  
 gtcccgatat taaacgcgga aacatcttgc ccgccgagga ggagcttatt attcggctgc 300  
 atcgcttct tggcaatcgg tggctactga tagcaggacg actgcctggg cgaacagaca 360  
 acgaaatcaa gaactactgg aacactcatc ttgagc 396

<210> 1617  
 <211> 296  
 <212> DNA  
 <213> Pinus radiata

<400> 1617  
 gtcggcgctg ggcggcgctg cgaggaaaacg gcggcgctcag ctgtgaagga aacgcatttc 60  
 anaggcgtga ggaagaggcc gtgggggaga ttcgctgcgg aaatcagaga tccctggaag 120  
 aagacgagac tctggctcgg cacttttgac acagccgaag aggccgcccg cgcctatgat 180  
 aatgccgcca gaaatctacg cggccccaag gccaaaacca atttcgctat ccacgacgat 240  
 agcggccgcc ctgttcaaca gtggcggcgg acgcgcgcgtc cctagtcagc gacaag 296

<210> 1618  
 <211> 381  
 <212> DNA  
 <213> Pinus radiata

<400> 1618  
 gagctttctc tcaagaacat tcttacagca aatgagcaga ctacaactgc agaaccagga 60  
 aataataata cagttgtttt cctggaatct attactaatc catctgtcag agttgcggat 120  
 ttaccgtcta tttccactgt atgtaaaaag tatggagcat ttcttatagt agataataca 180  
 tttgctacac cgataaggat caagcccatc aagcaggggtg ctgacatggg cattcattca 240  
 gtaacgaaat ttcttggtgg ccatagtgat ctggttgacg gagtagttgc aggtctcttc 300  
 caccacatag agttagcctc aaagctggta ggctgcgtgg ggctgcttgc tgctccattc 360  
 gattcatggc ttgccactcg c 381

<210> 1619



<211> 373  
 <212> DNA  
 <213> Pinus radiata

<400> 1619  
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 ttectgtcat cccagcatc ctctcgtgtt gagggacaaa ccagtttcac cacaacgcgt 120  
 atgcgacgtc tgtggaaggg atgttttagg attcgtttat gactgccgtg aatgtgacgt 180  
 ggacgttcat ccctcctgtg cacagctgcc gcagacgctg cgccacgctc tgcattccaca 240  
 ccacaccctt caactctccc atggacctga agctcccgcc cctcctgcac gctcctgtaa 300  
 cgtatgcgga gaagcctgta gccctgggca ctggagctat cgttgcgaa tagccagtgc 360  
 gccgtgtgat ttc 373

<210> 1620  
 <211> 137  
 <212> DNA  
 <213> Pinus radiata

<400> 1620  
 caagggttcc agaccttttg catcttcatt attcttccgc ctgtgaaaag atggggagat 60  
 ctccgtgctg tgagaaggct catactaaca aaggggcctg gactaaacaa gaagatgacc 120  
 gccttatcgc tcacatt 137

<210> 1621  
 <211> 372  
 <212> DNA  
 <213> Pinus radiata

<400> 1621  
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 aatttcgaag atggtttagat cttcttgcta ttcaaagcaa ggtcataggc gtgggatttg 120  
 gaccctatg gaggatatga ttctctctga atacattcga attcatggca gtgatggatg 180  
 gaaaaatata gctaaacgag caggtcttaa acgatgtgga aagagttgca gattacgttg 240  
 gttgaactat cttcgccccg acattaaacg tggttaacatt tctcctgatg aggaggacct 300  
 cattattagg ttgcatggcc ttcttggcaa tcgcaggacg actaccgggt cgaacagaca 360  
 acgaaatcaa ag 372

<210> 1622  
 <211> 464  
 <212> DNA  
 <213> Pinus radiata

<400> 1622  
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 ggagcaggct gcgggttcga tccaagata aggaaaaaag aaagaaaatt tcatgaattg 120  
 ggctgtaga ttccagtcac gaaattaaaa cctatcggtc tcgtcttcga gctaaagttg 180  
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 cggacacctc agttccaacc actcgttcgt cagaattctt tatacaattt aacgctggag 300  
 gaggtccaga accagctcgg ggacgccagc aagccactta gcagcatgaa catggacgag 360  
 ctctgaaga acatttggac acaagagaaa gccaggctat atccatggcg atcggcaatg 420  
 ggcccatgaa cgggtgttct cccaactctg cccctgccag cgggt 464

<210> 1623  
 <211> 436  
 <212> DNA  
 <213> Pinus radiata

<400> 1623  
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 ggggtgagatt ctttcatatt tatgcgtaaa acgttgactc caatcggcgt gaaacaaacc 120  
 aatagaaatc ccaaattgat ttctttcaat ttcattctgat acacagagag aattcagtca 180

gtggaagtca	tgtctaacat	aacgtctgcc	tctggagagg	ccagcgtttc	ttctggcaat	240
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ccaacgtctg	caaattggcg	cggaaatata	aacagtgtct	agcaaaaccc	agagaagaag	360
agaaagagaa	atcttccagg	aactccagac	ccagatgcag	aagtgattgc	tctgtcgctt	420
aggactctca	tggcta					436

<210> 1624  
 <211> 337  
 <212> DNA  
 <213> Pinus radiata

<400> 1624						
gccagagctg	tggctgttcc	cagaagagga	tatcatcagc	tgtccagttt	gtcctaagag	60
actacagaag	aagaatatag	aagatgggta	gatccccttg	cccccaaaa	gaagcgctta	120
accgtggggc	ttggacaggc	atggaggata	cgattctcac	cgagtacatt	cgagttcatg	180
gcagtgggtg	ctggaaagat	atctccaaaa	gagcaggtct	taagaggtgt	gcaaagagtt	240
gcagattgcg	ttggctgaac	tatcttcgtc	ccgatattaa	acgtggtaac	atttctcccg	300
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<210> 1625  
 <211> 421  
 <212> DNA  
 <213> Pinus radiata

<400> 1625						
ctgaagtgcc	gtcgattgtt	cgggaggata	gcgttttcga	agttcgttgt	tgagttatct	60
cgcgagactg	tagaatttta	gggttggttt	ccacaaaccg	acttttcccg	acttcaaattc	120
ttgatattga	agtacatgg	ccggcgagaa	aagaaagatt	aatagaatag	ctaacgcttc	180
ggccaggcag	gtcaccttcg	cgaagaggcg	gagggggctg	ttcaaaaaag	ctcaggagct	240
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ccagtactcc	agctccagca	tgaaaatgat	attggaccag	tatattttgt	attctagatc	360
aattcaaaag	gatggaaagc	caaactctga	ggagagtcac	gatatccaaa	agataaacca	420
c						421

<210> 1626  
 <211> 315  
 <212> DNA  
 <213> Pinus radiata

<400> 1626						
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tatatataga	gagagagaaa	tatacgtttt	tcagatttaa	gcatggccgt	ttaataatct	120
gcattgcatg	gagagattgt	atgtgtgtta	gaagttgatt	ttctgttttt	tctctttcag	180
ttagtttagtc	caataaagca	gagatgggtc	gtgctccatg	ctgcacaaaa	gttggtctca	240
acaagggagc	atggctctgc	gaagaggata	gtcttctggg	aagatatatt	caaactcatg	300
gtgaaggcaa	ttgga					315

<210> 1627  
 <211> 373  
 <212> DNA  
 <213> Pinus radiata

<400> 1627						
cacatccata	catgtgggg	ggacagccgt	tgatgccacc	ttatgggact	ccactaccat	60
atcctgcaat	gtatccacat	ggaggaatct	atgcacatcc	ttccatgcct	ccgggtgcac	120
ttcgtatgg	tactatgga	atgccatcac	ctggcaatgc	tgaagttaca	acgactttag	180
cacttccaaa	tgctgaagca	gaagccaagt	cctcggaagg	caaagagcgg	aataacaatga	240
agagatcaaa	aggaagttaa	ggaagccttg	gaatgattac	tggcaaagga	ggagaagggtg	300
gcaaggcaac	atcgggatct	gcaaatgagg	ccatgtcaca	aagtggggac	agtggcagtg	360
acggttcaag	cga					373

<210> 1628  
 <211> 512  
 <212> DNA  
 <213> Pinus radiata

<400> 1628  
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 tagagtcttg acaagttggg acaaaggagg gaattccacg gatgttatag atatggatat 120  
 agggactggg agactaacag gttctgaaag gagacatgac aaacggaatc ctacatttac 180  
 agaccattat agacattcag acagtgatcg aatgaagatg aacagctact tatatccaga 240  
 aaacaacaat agcacggcgc ttgttgcgct tctgtttgtt cccaggaacg acaaacttgt 300  
 aaagattgat ggcaacctta taatccatgc agttctagct ggggaaaaag cctcgagagc 360  
 attatctgcc tcacagtcta gaggcaacaa agatgggcat gtagacacca tttcacttca 420  
 aaaggaatat gaaaagaata gtttggcagt cagaacagaa aggcacgtg ctcttgctgc 480  
 tgctgccgcc gccactacag attcagccag aa 512

<210> 1629  
 <211> 395  
 <212> DNA  
 <213> Pinus radiata

<400> 1629  
 gagaaaacgg acctgaccat atcgaaacat tcacaggggg agattgatca aacacaaata 60  
 ccgtaaaatc gcagcgaaaa tccaaaattc caccatgggg actgtggcgg aggatggcag 120  
 caagggttac aaggccgtaa atccccatcc caaaaagggg gtcgcctcgt ggctgggtgga 180  
 catgggtggag aaactgggtg ttgaaacttc tgcgttgtat agttcgaaga agcctctgca 240  
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 attcgcaccg gtagctggct atcactgggt tgatg 395

<210> 1630  
 <211> 285  
 <212> DNA  
 <213> Pinus radiata

<400> 1630  
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 tgctgttgt tgggcaactt cctagttgct tggatggaga gttcgtgcgc gttgggtcca 120  
 atccgaaatt cgcaccgta gctggctatc actggtttga tggagatgga atgatccatg 180  
 gtctcagaat taaagatggt aaagccacat atgtgtcacg ttatgtgaag acatcacgct 240  
 tgaaacaaga ggaatacttt gggaaagcaa aattcttttaa gattg 285

<210> 1631  
 <211> 438  
 <212> DNA  
 <213> Pinus radiata

<400> 1631  
 gtttttcaaa gctcaggttt aacagaaaat acccgggaaa attaacaaga aaaaaggaaa 60  
 aacagagatt ttgtttattt ctgttattag tctgctaaat tggtttttga taatttaatt 120  
 aattaaggcg ggggcccgc cctccaggca gtggcggaaga ccagtgggag gccctgccac 180  
 ccgaggagga gagccgcgtg cgttttctcg acttcgaacc cgcggctatg gaggcgctgg 240  
 atcaggtact ctgcctgcgt ctcggtgaag ttgctgaagg ccaactgggga gaagccggcg 300  
 gcggcgaaca gggctctcca tggcgagacc ggcgcgagag gaaatgggtg cgtcgatctt 360  
 cggagctagc aggaacttct cgtatcttggt cacggcctcc atgttgatgt tcacggcatc 420  
 cagtgaatcg aacaggaa 438

<210> 1632  
 <211> 457  
 <212> DNA  
 <213> Pinus radiata

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<211> 318
<212> DNA
<213> Pinus radiata
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<211> 211
<212> DNA
<213> Pinus radiata
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<210> 1635
<211> 350
<212> DNA
<213> Pinus radiata
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<210> 1636
<211> 356
<212> DNA
<213> Pinus radiata
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500

<210> 1637  
 <211> 362  
 <212> DNA  
 <213> Pinus radiata

<400> 1637  
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 gtgcgtttct gaatttctcg ccaagtgaat gagtcgatcc agccttggtt cagcgaaacc 120  
 tggtgtggtt ttgggttttc ttggcttttg ccttttcatt ctttggttcc ttggattcga 180  
 actcgagatc tcctgaatat tatggcacag gagagctgga accaggagga gaccgggtgc 240  
 caagtcccg aagggtcat gcgctgtgcc aacaactgtg gcttcttcgg aagtccggcc 300  
 accatgagtc tctgctccaa gtgttaccgc gaattcgtgc tgcctcaact ccctaaatcg 360  
 tc 362

<210> 1638  
 <211> 359  
 <212> DNA  
 <213> Pinus radiata

<400> 1638  
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 tggttcagaa atggcggaact aaagtaatat tgtgccccga ggtctgggtg tcgaatctcg 120  
 ttggcgtgaa aggtcaaatt tttctctcga gtttcattga ttctgaaaaa ctggcatagc 180  
 tatggcgatg agcaatggga gattgtgtga agatttggat aggattaagg ggccgtggag 240  
 ccccgaggag gacgcgtcgc tgcagaggct tgttcagaaa tacgggcca ggaactggac 300  
 cctgataagt aaaggaatcc cggggcgatc cgggaaatcg tgcaggctac ggtggtgca 359

<210> 1639  
 <211> 299  
 <212> DNA  
 <213> Pinus radiata

<400> 1639  
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 tgcagtcgc actggcgga aggttacaat gcgaaggaaa aagaagaaa ttcataagac 120  
 tgccagcgca gatgacaaga gacttcaaag taccttgaaa agaataaggc tgaataacat 180  
 ccctgctatt gaagaagtca atatttttaa ggatgacat gttattcatt ttgctaacc 240  
 aaaggtccag gcttctattg ctgccaacac atgggtgggt agtgggcatc gcaacaaa 299

<210> 1640  
 <211> 300  
 <212> DNA  
 <213> Pinus radiata

<400> 1640  
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 aagttgttat ggggggaatt atgctggtcg ggtcgacgat gattcctgcg ggcggcgcg 120  
 cggcagcggc ggagacgtcg gtggaggaag gaggagaatt gaataagatc gaaagcccta 180  
 caccatcacc aagtccagag aaagctggac tgagcaggag cacaacaaat ttctgcgaag 240  
 ctatgcagcc tgtttgatag ggactggaag aagaattgaa gcatttggtt ggttcacaag 300

<210> 1641  
 <211> 311  
 <212> DNA  
 <213> Pinus radiata

<400> 1641  
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 ggcagaaagc ttgcagaatc cttttctcca gcacggcaa cttatgtgca ctgtgatgtc 120  
 agcaaagaag aagacgtgag cgcggctgtg gatctggcta tggataagta tggtaactc 180  
 gacattatgt ataacaacgc tggaactaac gacagcttcc tggatgaagag cgtggcagag 240

tatgatattgg agcaattcga tcgagtgatg aacgtaaacc tgaaaggagt gatgcacggc 300  
 attaagcacg c 311

<210> 1642  
 <211> 350  
 <212> DNA  
 <213> Pinus radiata

<400> 1642  
 agggatcagg caacgtccat gggggaaatg ggctgcagag atcagggatc ccagaaaagg 60  
 cgctagggtt tggctgggta cctttaatac ggccggaggaa gctgctcggg cttatgatgc 120  
 agctgcacga aagatcagag gtaagaaggc gaaagtaaatt tttgttgatg agccaccacc 180  
 ctccgtttaag aaggaaagta ataatgctaa gggttccaag aaagggtcca gcaagaaaat 240  
 aaaatcatat ctaccccaaa gcttgacttt ttcgaagggt tcaaaacggc gaacccttcg 300  
 attgcccaat acaacttcca tcagaaattc ccaaacccta actgtgatga 350

<210> 1643  
 <211> 322  
 <212> DNA  
 <213> Pinus radiata

<400> 1643  
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 gggtttctg gtcactctgg agaggcgatc cattcagctt cgcaggcccc cgaagatggc 120  
 gttcgccggc acaaccaga agtgcaaggc atgtgaaaag acggtctatt tggttgatca 180  
 attgacagct gataattctg tttttcaca atcctgtttc cgctgccatc actgcaatgg 240  
 aactttaaag cttagcaact attcgtcgtt tgaggagggt ctatattgca aacctcattt 300  
 tgaccagctg ttttaagagaa ca 322

<210> 1644  
 <211> 345  
 <212> DNA  
 <213> Pinus radiata

<400> 1644  
 gccgaaactc gaatcgatat gctttgtggc cggttcaaat atttgagctg gcttagcttc 60  
 tctggttcag aaatggcgga ctaaagtaat agtgtgcccc gaggtctggg gttcgaatct 120  
 cggtggcggtg aaagggtcaaa tttttctctc gagtttcatt gattctgaaa aactggcata 180  
 gctatggcga tgagcaatgg gagatttgtt gaagatttgg ataggattaa ggggccgtgg 240  
 agccccgagg ggacgcgtcg ctgcagaggc ttgttcagaa atacggggccg aggaactgga 300  
 ccctgataag taaaggaatc ccggggcgat ccgggaaatc gtgca 345

<210> 1645  
 <211> 508  
 <212> DNA  
 <213> Pinus radiata

<400> 1645  
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 ggaaaggcag caccgagaaa catatccgag gagaaagtat actcatatat taacgtaacg 120  
 gaaaatggaa ataatgatga tcaaggcaaa ggtattacag aggtccatcc tcatcccaag 180  
 aaaggcatcc tttcatcggg aattgatttg gccgagaaaa tcgtgggttcg ctcgctctac 240  
 ggctccgcca aacctctgca ctacctcgct ggtaatttcg caccgggtcg acaagaaact 300  
 ccgccgcaca cagacttgtc cgtcattgga aatctcccta aatgcttgga tggagaattt 360  
 gtgcgagtcg gtcccaatcc cagattttgc ccccgctcgt ggctatcatt gggtcgacgg 420  
 agaccggaat gctcatgggt tgaggattaa agatggcaaa gcagcttatg tttcgcgttt 480  
 ccgtcaaaac ttcacgtctc aagcaaga 508

<210> 1646  
 <211> 368  
 <212> DNA

&lt;213&gt; Pinus radiata

&lt;400&gt; 1646

tggtctttcc	cggcagacct	agtaagccga	ctactgtaaa	tttattcttt	tagggttaca	60
gaaaaagaaa	atacaagatg	ggcagatctc	cttgctgctc	aaaagaaggg	ctcaaccgtg	120
gggcctggac	caaaagggag	gatatgattc	tctccgaata	cattcgaatt	catggcgatt	180
gcggatggag	aaatatgccc	aaaagagcag	gtctttaaag	gtgtggaaa	agctgcacga	240
ttacgatggc	tgaactatct	tcgccccgac	attaaacgtg	gaaacatttc	ccctgatgag	300
gaggaactca	taattcggct	ccatcgccct	cttggcaatc	gatggtcgct	tatagcattg	360
aagattac						368

&lt;210&gt; 1647

&lt;211&gt; 367

&lt;212&gt; DNA

&lt;213&gt; Pinus radiata

&lt;400&gt; 1647

cttcccttca	tcagatgttt	cccaggctgc	actcatcagc	tgcagcacca	cgcggttttg	60
gattctccct	gttctttgtt	ctgttgctgt	aaagattggg	tgcaggctga	atcgcccagg	120
ccgatttgaa	ttctcctgag	gattgacaag	atgacgcgca	agtgcctcga	ctgtggcaac	180
aacgggcata	actccaggac	gtgccctaac	cgcgggcggg	tgaagctctt	cgcggttcgg	240
cttaccgatg	gcccgatcag	aaagagcgct	agtatgggga	atttgatgat	gatgtccaac	300
cctagctctc	ccgctgacct	ctccnagccg	gcctctgccc	cttctgctgc	cgcgggcgcg	360
gcggcca						367

&lt;210&gt; 1648

&lt;211&gt; 511

&lt;212&gt; DNA

&lt;213&gt; Pinus radiata

&lt;400&gt; 1648

gtggctcttc	ccggcagacc	tagtaagccg	actactgtaa	atttattctt	ttagggttac	60
agaagaagaa	aatacaagat	gggcagatct	ccttgctgct	caaaagaagg	gctcaaccgt	120
ggggcctgga	ccaaaaggga	ggatgatgatt	ctctccgaat	acattcgaat	tcattggcgat	180
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gaggaactca	taattcggct	ccatcgccct	cttggcaatc	gatggtcgct	tatagcagga	360
agattaccag	gtcgaacaga	caacgaaatc	aagaactact	ggaacactca	tatgagcaag	420
aagctgcttc	cattgaacga	atctcaaccc	aagactttgc	ctgtccccaa	gaggaggtcg	480
caatctcctt	ctccccctga	aaatcgagtc	t			511

&lt;210&gt; 1649

&lt;211&gt; 364

&lt;212&gt; DNA

&lt;213&gt; Pinus radiata

&lt;400&gt; 1649

tgcgcttcca	tccgacaaaa	caagtggggg	acatgcatat	tgcaagtgtg	gagaacactg	60
cagctgcaat	ccatgtaact	gttcaaagat	tgacgagact	gttagtgagg	aatccttctg	120
taaatgtgga	gagaattgag	cctgtgaaac	atgcacctgc	agcagagctg	gaatatagcc	180
tagttgattg	tttttctcag	ccagaactta	ggattccatg	accactagta	ataagatgca	240
gtatcaatag	cagctgatgt	ttatgtatgc	agtaagttta	taaaagagag	tggttacttt	300
ttggcttttag	taatttggtg	cttatgttat	gtatgtagta	agtttatctc	caaatacaga	360
gccg						364

&lt;210&gt; 1650

&lt;211&gt; 354

&lt;212&gt; DNA

&lt;213&gt; Pinus radiata

&lt;400&gt; 1650

caagagtaaa	cccgaaggaa	tagaagggga	aggaggcatc	ggcagcggtg	ttcctcctcc	60
tctcctctcc	tgcatttctc	aaactcaa	acctctcctc	tcacatcatg	gaaggcggag	120
tcgtctttga	atctgtgcaa	aaccactgg	atcgctgaa	caactggaaat	atggaccatg	180
gttggtgccc	ttacaggaga	cgatgtcgga	ttcgggcccc	ttggtgcaat	gagatctatg	240
attgtaggca	ctgtcacaat	gaagccatga	gccatctaaa	ggacccttg	ctgcgccatg	300
agctcccaag	atacaaagtt	gaacgggtta	tttgttctct	ctgtgacact	gagc	354

<210> 1651  
 <211> 424  
 <212> DNA  
 <213> Pinus radiata

<400> 1651						
cttcctgggtg	ttgttgctgt	gatttctctg	ccattctgtg	ttgggtttat	ggtttttagct	60
tactacaag	ccttttagcaa	gcctcacaaa	taagctttgc	agtaggatgt	ctcctcccc	120
gtcatattcc	atgtttccca	attcaggaat	gggcttaaat	ccctcagtga	catcttcaga	180
accctctagt	caggtctccg	gatcgatccc	ccatcaatat	tcaggctccg	aggaagaccc	240
taaactgacg	atcgatgaaa	gaaagcagaa	gagaatgctt	tctaacagag	aatctgcaag	300
gaggtccag	atgagaaagc	aacagcattt	ggatgaattg	agagcccgaa	cagctcatct	360
cagagcagag	aacagtcata	tgctaacaaa	attcaacatt	gcttcacaga	aatacatgca	420
gctg						424

<210> 1652  
 <211> 422  
 <212> DNA  
 <213> Pinus radiata

<400> 1652						
gtcaatgctg	ccgctcgaac	tggaggccct	attgaaacta	tcaagaaatt	taatgcagga	60
tcaaacaag	cagcctcgag	cagcaccacc	ttgaacacca	agaagcttga	tgatgagaca	120
gaagttctcg	ctcatgaaag	agtttcatca	gatttgaaga	aaaacataat	gcaagcccgt	180
ttagataaaa	agttgacaca	agcccagctt	gcacagcaaa	tcaatgaaaa	acctcagatt	240
attcaagagt	accgagtcg	ggaaagcaat	tcccaatcag	cagatcattg	ccaagctgga	300
aagggtcctt	ggtgtgaaac	tgcgtggaag	cactggaagt	ggaaagaaat	aactggaagt	360
atgcaatagc	aataacatgt	catagagttg	tgtgatttgg	cgttcaccac	ccacacctgc	420
tt						422

<210> 1653  
 <211> 357  
 <212> DNA  
 <213> Pinus radiata

<400> 1653						
gnacgagctc	gatctggcct	taaggggtta	cagaagaaga	atttcgaaga	tgggtagatc	60
ttcttgctat	tcaaagcaag	gtcatagccg	tgggatttgg	accttatgg	aggatatgat	120
tctctctgaa	tacattcgaa	ttcatggcag	tgtggatgg	aaaaatatcg	ctaaacgagc	180
aggtcttaaa	cgacgtggaa	agggttgacg	attacgttgg	ttgaactatc	ttcgccccga	240
cattaaacgt	ggtaacattt	ctcctgatga	ggaggacctc	attattaggt	tgcatggcct	300
tcttggtcaat	cgatggtctt	tgatagcagg	acgactaccg	ggtcgaacag	acaacga	357

<210> 1654  
 <211> 306  
 <212> DNA  
 <213> Pinus radiata

<400> 1654						
gcgcattggt	cagctgtgtc	gcagaacacg	gagcgaaagt	cataatcgca	gacgttgacg	60
agaaagctgg	cagaaagctt	gcagaatccc	tttctccagc	atcggaact	tatgtgcact	120
gtgatgtcag	caaagaagaa	gacgtgagcg	cggctgtgga	tctggctatg	gataagtatg	180
gtcaactcga	cattatgtat	aacaacgctg	gaactaacga	cagctttctg	gtgaagagcg	240
tggcagagta	tgatatggag	caattcgatc	gagtgatgaa	cgtaaacgtg	aaaggagtga	300



306

tgacg

<210> 1655  
<211> 368  
<212> DNA  
<213> Pinus radiata

<400>	1655					60
cttcagtttg	ccattgaaga	ccaataaaata	attattgtga	agcagcagcg	ttttaatcag	120
agatccagca	agaagaggac	caggaaaaaat	catttgcgag	acaagaagat	aatccaagat	180
gtcaagcaca	cgcagccctc	agtgtggggtg	cggagaaaact	tgcgcttgcg	ccgattgcaa	240
gtgtggagtt	gtgagtattg	cgctccatc	cgaccaaaca	agtgggggac	atgcatattg	300
caagtgtgga	gaacactgca	gtgtgcaatcc	atgtaaactgt	tcaaagattg	acgagactgt	360
tagtgggaaa	tccttctgta	aatgtggaga	gaattgcgcc	tgtgaaacat	gcacctgcag	368
caqagctg						

<210> 1656  
<211> 333  
<212> DNA  
<213> Pinus radiata

<400> 1656					60
ttgaattctt	gtcttcccc	cagctgaggc	tctctgagac	caaggtgaga	ttcagccagt
agtaagctat	agattgatat	ttcagagaaa	agactgaaag	gcaaaaaacta	tatagacata
acaacggaga	gagcagcaca	ggaaccaggt	tgcataatgg	ctaggcctca	aagatacaga
ggagtcggtc	agaggcactg	gggatcatgg	gtctctgaaa	tccgccatcc	cttattgaag
accagaatat	ggctaggaac	atttgaaaca	gcagaggatg	cagcacgagc	atatgatgaa
gctgcaagga	tgatgtgtgg	gccgagagct	aga		333

<210> 1657  
<211> 355  
<212> DNA  
<213> Pinus radiata

<400>	1657					60
gttccccgtc	tcttcogtct	gctaggcatt	tctctgcgat	tcttcttctt	ctgctcgggg	120
tctctctgg	gaaatcgcc	ccgcaggagg	agggctgagg	gcagggctcg	gctcgggctcg	180
gttcgtttcg	gcaggagtta	tctcagggtt	tttctcttga	ttttctgcgc	cttcggactc	240
gggcttacag	ttacacgcatc	tggaaaaatgg	cgtcacagga	gagctcaaaa	atgcaagagg	300
aagggagtg	gagacaagtg	ccggaagggc	ccattcactg	tttgaacaac	tgcggcttct	355
tcqggagcgc	ggccaccatg	aacttggtgct	ccaagtgcta	cagagagctt	aacgc	

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<210> 1658
<211> 341
<212> DNA
<213> Pinus radiata
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<400>	1658					60
ggggaattgat	tcttggccga	ggcatttcga	gcgccataca	cattgcggcg	gactgcggga	120
agtattgttt	tcatgaattc	ccttaattgg	gtcccagaat	acgttctcag	atccgaaaac	180
ggttcagtc	atcggagggt	acagcgattc	gaaggcctga	aaacccta	aatacctatc	240
cccccttg	tttgaatggc	ggagaactat	ggcagcccg	atagcagccc	ccggtcggag	300
aacgaatccg	gcggcggtca	catgggcggc	agcgatttct	ctgtgaaaga	gcaggatcgg	341
ttcctgccta	tagccaacgt	ggggcgcata	atgaagaagg	c		

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<210> 1659
<211> 353
<212> DNA
<213> Pinus radiata
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<400> 1659

WO 00/53724

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gaaaaacaaa gcagaaagcc accatgtggt agaggaggtg ctgaggataa aggagcttct 60
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gcatatttct gtggaggctt tgaaggagac tgatattggt agacaagtga atggactgcg 180
aaaacattct tctgctgaca ttcgaaagct agtaaaagag ctcataagga agtggaaaga 240
tcttgtcgat gagtgggtaa gcaactgcaga tgaagttgca gctgctgcaa ttgttgatgg 300
agattctcca caagtggtg gcagcagaat ttctcaacag agtattgtgc aga 353

```

<210> 1660  
 <211> 317  
 <212> DNA  
 <213> Pinus radiata

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<400> 1660
caagagtaaa cccgaaggaa tagaagggga aggaggcatc ggcagcggtt ttctctctcc 60
tctcctctcc tgcatttctc aaactcaa atctctctcc tcacaatcat ggaaggcgga 120
gtcgtctttg aatctgtgca aaacccactg gatcgctga acactggaaa tatggaccat 180
ggttgtgccc attacaggag acgatgtcgg attcggggcc cttgttgcaa tgagatctat 240
gattgtaggc actgtcaca tgaagccatg agccatctaa aggaccctt gctgcgccat 300
gagctcccaa gatacaa 317

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<210> 1661  
 <211> 340  
 <212> DNA  
 <213> Pinus radiata

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<400> 1661
caatggcggc ccagactatc atcgtgcct ctatggcatc ttctctaaca ttatcaaattg 60
gccactatcc gtttcagtc gagttcaagg ggtccgtggt tcgaatcccg cagagggcat 120
tttcttcg gcctgcagcc cgggcgctga ccgtcgctgc agaggccaag aaggccgttg 180
ccgtgctcaa aggggaattca caggtcgagg gtgtgtgcag tctctcgag gaagacagcg 240
gtcccacaac agtgaaggtc cgtttgacag gactgactcc tgggaagcat ggctttcatc 300
tacatgagtt tggtgacaca accaatggct gcatatcaac 340

```

<210> 1662  
 <211> 563  
 <212> DNA  
 <213> Pinus radiata

```

<400> 1662
ttcgggttcgt attcagggtt tccggagctt gttgtgtggt gttctgcagg tcaggacatt 60
gtaggcctgg ttatacaaga ttctgaagca aactctcgga gcctcgaaga atcggcgcaa 120
atttcaacgg ccttataact atttggaag cagtactctg gatttttctc ccggaacgga 180
tcggagtgtg cgaagcgtaa taatcgctg gaatttgtct tctgcaagat aatattcaat 240
taatctattg tcgaaggaaa tttgagccgt ataagaggat aatcaaaaga agccggttga 300
tttctccggg attaaaggat ggatcaagaa aactggaaca tcggagctga tggcactggc 360
tgccaactcc agaagggcac actctttgcg ccaataactg cggctttttt ggcagttcgg 420
caacgagaaa cctgtgttcg aaatgttaca gggatctgat tatgaaggag gccccagcct 480
catctgcaat ggccgcccgtt gagaagtcatt ttgccgcggg ttctccgatg gaggaggagg 540
cccctctttc caagccagat gtt 563

```

<210> 1663  
 <211> 572  
 <212> DNA  
 <213> Pinus radiata

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<400> 1663
cagcaatggc ggcccagact atcatcgctg cctctatggc atctcctcta acattatcaa 60
atggccacta tccgttttcag tccgagttca aggggtccgt ggttcgaatc ccgagaggg 120
cattttcctt cgcgcctgca gcccgggcgc tgacagtcgt cgcagaggcc aagaaggccg 180
ttgccgtgct caaaggaaat tcacaggctg aggggtgtgt caatctctcg caggaagaca 240
acggtcccac aacagtgaag gtccgtttga caggactgac tctggggaag catggccttc 300

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atctacatga	gtttggtgac	acaaccaatg	gctgcatctc	aacaggagca	cattttaatc	360
caaaaaaatt	gacacatggt	gctcctgagg	acgatgtacg	ccatgcgggt	gacctgggaa	420
acatagttgc	gggttctgat	ggagttgcag	aggcaacaat	tggtgataat	cagattccat	480
tgagtggacc	tgattcagtt	attgggaggg	cacttgttgt	ccatgagtta	aaggatgacc	540
tggggaaagg	tgggcatgaa	cttagcctga	ca			572

&lt;210&gt; 1664

&lt;211&gt; 366

&lt;212&gt; DNA

&lt;213&gt; Pinus radiata

<400> 1664						60
atcgcttcgg	cccgagcaat	tttgcttctc	tgctaaacga	tgggaagagc	gccttgctgt	120
gccaacggtg	acagaagcaa	gggagcctgg	accaaggaag	aggatgacag	gcttacccaa	180
tatattcagg	ctcatggaga	aggatgctgg	cgttctctcc	ccaaggccgc	aggtctgctt	240
cggtgtggaa	aaagttagcag	gctgagatgg	ataaattatc	ttcgccctga	tctgaaacga	300
ggaggttttt	ctgaagatga	agacgatctt	attctcaaac	tgcacgccct	cctcggaat	360
aagtggctctc	tgatagcggg	tcgtttgcct	ggtcgaactg	gccacaaaaa	tcaaaactac	366
tggaact						

&lt;210&gt; 1665

&lt;211&gt; 348

&lt;212&gt; DNA

&lt;213&gt; Pinus radiata

<400> 1665						60
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tgtggccagg	gagtgcacca	aggctcgcat	tttggatggt	antaggggtg	gaagatttat	180
tgacgatagg	cgtggaagat	ttaatgacat	aatctgtagg	acatgcaacg	agccagggca	240
taccagtagg	gagtgcactg	gaattctcat	ctgccacaac	tgtgggtggc	gtggacatgt	300
tgcatactaa	tgcccctctg	gtcgtgtgat	gctgcgggac	atgcgcaggc	attgatgctg	348
caatttctac	aacaccttga	cttttttagat	tatctgattt	tgacaaat		

&lt;210&gt; 1666

&lt;211&gt; 422

&lt;212&gt; DNA

&lt;213&gt; Pinus radiata

<400> 1666						60
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accgaagttg	ccagccatgc	tcaaaaagtag	tacattcggc	ttggttcgga	taataaaaac	240
aagagaagat	ccagcataca	tgatatcacc	actgttcatg	gtacagacag	gatgccttct	300
cctttactgc	acgtttctaa	taggcagact	aattccccct	caacacaggc	agaaatgaat	360
cattcaccat	gtctgacata	tccatctcag	atttcacgag	gacctcta	aaactctttg	420
ggacctcaaa	tagatggtaa	cctttctattt	tcacctcact	atcctctaaa	tctgtatacc	422
ca						

&lt;210&gt; 1667

&lt;211&gt; 467

&lt;212&gt; DNA

&lt;213&gt; Pinus radiata

<400> 1667						60
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gcaaactctc	ggagcctcga	agaatcggcg	caaatttcaa	cggccttata	actatttggg	180
aagcagtact	ctggattttt	ctcccggaa	ggatcggagt	gtgcgaagcg	taataatcgc	240
ctggaatttg	tcttctgcaa	gataatattc	aattaatcta	ttgtcgaagg	aaatttgagc	300
cgtataagag	gataatcaaa	agaagccggt	tgatttctcc	gggattaaag	gatggatcaa	360
gaaaactgga	acatcggagc	tgatggcact	ggctgccaag	ctccagaagg	gcacactctt	420
tgcgccaaata	actgcggcct	ttttggcagt	tcggcaacga	gaaacctgtg	ttcgaaatgt	

tacagggatc tgattatgaa ggaggcccaa gcctcatctg caatggc

467

<210> 1668  
 <211> 465  
 <212> DNA  
 <213> Pinus radiata

<400> 1668  
 tccagatgtt cgtggtagac atgaaatctt agagctttat ttgcaaaata agcctctggc 60  
 tgaagatgtg aatgtgaaag cccttgctcg tggtagacct gggttcaatg gtgcagattt 120  
 ggcaaacctt gtcaacattg cggccatcaa ggcagcagtt gatggcagtg agaagttgtc 180  
 tgccaaacat ctggaatttg cgaaggatag aataatgatg ggaacagaac ggaagtcgat 240  
 gttcctatca gaggagtcga aaaagctcac tgcataccat gagagtggac atgcagttgt 300  
 tgcatttaat actgtaggtg caaaccttat acacaaggct acaatcactc ctcgagggag 360  
 tgctcttggg atggttacac agctgcctga caaggatgaa acatctgtta ataaaacgca 420  
 attattagca cgacttgatg tttgtatggg cggacgagtt gcaga 465

<210> 1669  
 <211> 421  
 <212> DNA  
 <213> Pinus radiata

<400> 1669  
 cgaaccatgg agtctaaggg acaggctaatt ccatctgttg cttctgtttg taatctcagc 60  
 aagaatggag agcgacgatt ggaagggaaa gttgttatag taacggggcg ggcagcgggc 120  
 ataggagaag ccattgttca gctgttcgca aagcacggag cgaaagtcac aatcgagac 180  
 gttgcagaga aagctggcag aaagcttgca gaatcccttt ctccagcatc ggcaacttat 240  
 gtgcactgtg atgtcagcaa agaagaagac gtgagcgcgg ctgtggatct ggctatggat 300  
 aagtatggtc aactcgacat tatgtataac aacgctggaa ctaacgacag ctttctgggtg 360  
 aagagcgtgg cagagtatga tatggagcaa ttcgatcgag tgatgaacgt aaacgtgaaa 420  
 g 465

<210> 1670  
 <211> 445  
 <212> DNA  
 <213> Pinus radiata

<400> 1670  
 ccataatcgaa acattcacag ggggagattg atcaaacaca aataaccgtaa aatcgagcgc 60  
 aaaatccaaa attccaccat ggggactgtg gcggaggatg gcagcaaggg ttacaaggcc 120  
 gtaaatcccc atcccaaaaa gggcgctcgcc tcgtggctgg tggacatggg ggagaaactg 180  
 gtggttgaaa cttctgcgtt gtatagttcg aagaagcctc tgcattttct tttggggaac 240  
 ttcgctccag tctcggaac tgcccccaaa tcgcacctgc ctgttggttg gcaacttcct 300  
 agttgcttgg atggagagtt cgtgcgcgtt ggtcccaatc cgaaattcgc accggtagct 360  
 ggctatcact ggtttgatgg agatggaatg atccatgggtc tcagaattaa agatggtaaa 420  
 gccacatatg tgtcacgtta tgtga 465

<210> 1671  
 <211> 460  
 <212> DNA  
 <213> Pinus radiata

<400> 1671  
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 tcgggtttgc tgggtcatctg ggagaggcga tccattcagc ttcgcaggcc cccgaagatg 120  
 gcgttcgccc gcacaaccca gaagtgcagc gcatgtgaaa agacgggtcta tttggttgat 180  
 caattgacag ctgataattc tgtttttcac aaatcctgtt tccgctgccca tcaactgcaat 240  
 ggaactttta agcttagcaa ctattcgtcg tttgagggag ttctatattg caaacctcat 300  
 tttgaccagc tgtttaagag aacaggaagt ttggataaaa gttttgaagc cattcctaga 360  
 gcatcaagaa atgacaagat gcatgagaat gagaacagga cacctagtag ggtatcagca 420  
 ttgttttccg gtacacagga taaatgtgtt gcatgtggga 460

<210> 1672  
 <211> 301  
 <212> DNA  
 <213> Pinus radiata

<400> 1672  
 ttgttggtgg gagacggaga acattgcttt gttaaattgg tcagcggggt tgcagctgaa 60  
 tccgaggctg ttgcatcctt aaaagtgttt tacctttgtg gtttggacct tagggtttga 120  
 actcttttaa gaaactctca aaatcagcct taaacaataa catacaagat gtccattcta 180  
 ccccaaagcg attccctcat aataagggaa gtttgggcag ataactctga ggaggagttt 240  
 gctttgattc gggaaattgt ggacgattac ccttatattg ctatggatac tgagtttcct 300  
 g 301

<210> 1673  
 <211> 321  
 <212> DNA  
 <213> Pinus radiata

<400> 1673  
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 aagatggcag caagggttac aaggccgtaa atccccatcc caaaaagggc gtcgcctcgt 120  
 ggctgggtgga catggtggag aaactggtgg ttgaaacttc tgcgttgat agttcgaaga 180  
 agcctctgca ttttcttttg gggaaacttcg ctccagtcct ggaaactgcc cccaaatcgc 240  
 acctgcctgt tggtgggcaa cttcctagtt gcttggatgg agagtctcgt cgcgttggtc 300  
 ccaatccgaa attcgcaccg g 321

<210> 1674  
 <211> 380  
 <212> DNA  
 <213> Pinus radiata

<400> 1674  
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 attgtcatca cagtcggcct ctgatcaaga agaagccgaa tcaggtgata attctgcaaa 120  
 ttctgcagat gtagaaactc ttcttcctca gggttgatgaa acagcttctg ctgatctgac 180  
 agtgttccca gggtttgtta ccccttatgt accatacggg ttccccatat ggcacacttt 240  
 tagaccaca ataactcaaa cttccaatgt ttataagcca acagctgtaa tgccaactgc 300  
 tccaataaaa atggacgaat gcacagggtt atcccagtta agcctcggcg gtgttgcagc 360  
 ggcttctgca atgaaacct 380

<210> 1675  
 <211> 350  
 <212> DNA  
 <213> Pinus radiata

<400> 1675  
 cccagctgag gctctctgag accaagggtga gattcagcca gtagtaagct atagattgat 60  
 agttcagaga aaagactgaa aggcaaaaac tatatagaca taacaacgga gagagcagca 120  
 caggaaccag gttgcataat ggctaggcct caaagatata gaggagtccg tcagaggcac 180  
 tggggatcat gggctctctga aatccgccat cccttattga agaccagaat atggctagga 240  
 acatttgaaa cagcagagga tgcagcacga gcatatgat aagctgcaag gatgatgtgt 300  
 gggccgagag ctagaaccaa cttcccatcc aatcccatgc acctccatct 350

<210> 1676  
 <211> 262  
 <212> DNA  
 <213> Pinus radiata

<400> 1676  
 aagtgaagctt catatctaac caataataac acctgtatag cttcacagca acagggcacc 60

atgggcccag	ctcttgctgt	gataaaatgg	gagtaaaaga	aaggcccctg	gactctaacg	120
aagataaaat	actggctgac	tacattacca	aacatggcca	tggcaactgg	cgtgcactgc	180
ccaagcaagc	agggctcctg	cgatgtggaa	agaagttgtc	gcctgcgggg	gacgaattac	240
ctgaaacccg	acatcaaaag	ag				262

<210> 1677  
 <211> 357  
 <212> DNA  
 <213> Pinus radiata

<400> 1677						
cgacaatggc	gcggaacggg	ttcgaaaccc	cgacgctcgg	cctcgaacgt	accgagggcg	60
tcgcccgcgg	agctggggga	agtgggtgtc	cgagattcgc	gagcctggga	agagaaagcg	120
catatgggtt	ggatccttcc	aaacggcaga	gatggcgggt	cgagcttacg	acgtggctgc	180
gctcagcctg	aagggaagat	ctgctttggc	caatttcccg	gattccgtcc	acacgctgcc	240
gcgcccctct	tctctgaatc	ccagagatat	ccagcttggc	ggctgcccag	gcagccgcga	300
attaacgcag	ccgatgggtc	ctaccgatat	ttcatcctgc	aaccgcaaga	tcaaaat	357

<210> 1678  
 <211> 354  
 <212> DNA  
 <213> Pinus radiata

<400> 1678						
cacgaggcag	tatctaccaa	tgctggggag	agacaggaag	cttgttgtgc	ttggtattcc	60
ttgggatgtc	gacactgaag	gtttacagga	ttatatgagc	aagtttggag	aactggatga	120
tgtgattgtt	atgcgggatc	gtgcaactgg	tcgttctcgt	ggatttgggt	atgccacatt	180
ttcttcagtt	gaagatgcta	agaaagcact	tgacagtga	catgttctaa	atggtcgtac	240
actggaagta	aaggtggcta	cacccaagga	ggagatgaag	gctccttcta	agaagattac	300
ccggatatatt	gnggcaaaga	attccccctt	ctgttacaga	ggatgcattc	cgaa	354

<210> 1679  
 <211> 174  
 <212> DNA  
 <213> Pinus radiata

<400> 1679						
gtccgggccc	tgagagcat	cagccttggg	gttacagacc	aggaaaatac	aagatgggta	60
gatctccttg	ctgctccaaa	gaggggctca	accgcggggc	ctggacccaa	agggaggata	120
tgattctctc	cgaatacgtt	cgaattcatg	gcgatgggtg	atggaaaaat	gttg	174

<210> 1680  
 <211> 221  
 <212> DNA  
 <213> Pinus radiata

<400> 1680						
gttcattaag	catggagcca	aagtcataat	cgcagacgtt	gcggagaaaag	ttggcaggaa	60
gcttgaggaa	tacttttctc	ccgctgtggc	aacctacgtg	cactgcgatg	tgagcaaaga	120
agaagatgtg	agcgcggcgg	tgatgtgtgg	catggataag	tatggccaac	tgacattat	180
gtataacaac	gctggaacta	atgacagatt	tttgggtgaag	a		221

<210> 1681  
 <211> 363  
 <212> DNA  
 <213> Pinus radiata

<400> 1681						
gcttaggcgc	attaaggagc	aaagggaagg	aaaatatcac	agcgacacag	caaaacagag	60
acagtcacaa	gaacaagccc	gaaggaaaaa	gatgtcccgg	gcacaggatg	gtatactgaa	120
gtacatgctg	aaaatgatgg	aagtttgcaa	agcacaaggt	tttgtatatg	gtatcattcc	180

tgaaaaaggg	aagcctgtaa	gtggagcctc	ggacaatctt	aaagcatggt	ggaaggagaa	240
ggtcagattt	gataggatg	gccctgctgc	aatcaccaaa	tatcaagcag	aacatgcaac	300
acctggagca	aatgagagta	acatggttgt	ggctcctacc	cctcatactc	ttcaggaact	360
tca						363

&lt;210&gt; 1682

&lt;211&gt; 374

&lt;212&gt; DNA

&lt;213&gt; Pinus radiata

&lt;400&gt; 1682

ctgatttgaa	gtgctcattc	atgaacaatc	cgagcagcag	ttatgcataa	aatgttgatt	60
gcagggtctc	gttattgcca	gcaactaaag	ggcgaatggt	ttacaatcaa	atatcgagaa	120
cgagaatgaa	tctgaagcct	ctcgggaatgc	tacaaattgg	taattttggct	cctgttagaa	180
gagcattctc	atcacctaga	gcctcagcag	atgaagaagc	tgctgcaaaa	gcagctgctg	240
ctgtagcaga	gacaggagcc	ccaaccatat	ttgacaagat	cataaagaag	gaaattccag	300
caactattgt	ttatgaggat	gcaaaagtgt	tggcatttcg	agatattaat	ccacaggcac	360
cagtccatat	attg					374

&lt;210&gt; 1683

&lt;211&gt; 407

&lt;212&gt; DNA

&lt;213&gt; Pinus radiata

&lt;400&gt; 1683

gccgtggctg	ttcccaggag	aggagagcct	cagctgtctc	gatctggcct	taaggggtta	60
cagaagaaga	atttcgaaga	tgggtagatc	ttcttgctat	tcaaagcaag	gtcatagccg	120
tgggatttgg	accctatgg	aggatatgat	tctctctgaa	tacattcgaa	ttcatggcag	180
tgatggatgg	aaaaatatcg	ctaaacgagc	aggtaaaatt	ctaatagcaa	tttttattgc	240
aaacgtaata	ctcattgaga	ggttaactaa	gcgggcagtt	tttgttctgc	aggctctaaa	300
cgacgtggaa	aggggttcag	attacgttgg	ttgaactatc	ttcgccccga	cattaaacgt	360
ggtaacattt	ctcctgatga	ggaggacctc	attattaggt	tgcatgg		407

&lt;210&gt; 1684

&lt;211&gt; 361

&lt;212&gt; DNA

&lt;213&gt; Pinus radiata

&lt;400&gt; 1684

gttcagagacc	ttttgcatct	tcattattct	tccgcctgtg	aaaagatggg	gagatctccg	60
tgctgtgaga	aggctcatac	taacaaaggg	gcctggacta	aacaagaaga	tgaccgcctt	120
atcgctcaca	ttcgagccca	cggcgaaggg	ggctggcggt	ctcttcccaa	ggccgcaggg	180
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aagcgtggaa	gcttcacgga	agaagaagac	gaactcatca	tcaaaactcca	ctccttcggt	300
ggcaacaagt	ggtctttaat	tgcagggaga	ttgcccggac	ggacggacaa	cgagataaag	360
a						361

&lt;210&gt; 1685

&lt;211&gt; 340

&lt;212&gt; DNA

&lt;213&gt; Pinus radiata

&lt;400&gt; 1685

caagagtaaa	cccgaaggaa	tagaagggga	aggaggcatc	ggcagcggtg	ttcctcctcc	60
tctcctctcc	tgcatctctc	aaactcaaat	acctctcctc	tcacaatcat	ggaaggcgga	120
gtcgtctttg	aactctgtga	aaacccactg	gatcgctga	acactggaaa	tatggaccat	180
ggttgtgccc	attacaggag	acgatgtcgg	attcgggccc	cttggttgaa	tgagatctat	240
gattgtaggc	actgtcacia	tgaagccatg	agccatctaa	aggacccctt	gctgcgccat	300
gagctcccaa	aatacaaagt	tgaacgggtt	atttgggtctc			340

&lt;210&gt; 1686

<211> 332  
 <212> DNA  
 <213> Pinus radiata

<400> 1686  
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 aagaagaaaa tacaagatgg gcagatctcc ttgctgctca aaagaagggc tcaaccgtgg 120  
 ggcctggacc aaaaggaggg atatgattct ctccgaatac attcgaattc atggcgatgg 180  
 cggatggaga aatatgccca aaagagcagg tcttaaaccg tgtggaaaga gctgcagatt 240  
 acgatggctg aactatcttc gccccgacat taaacgtgga aacatttccc ctgatgagga 300  
 ggaactcata attcggctcc atcgcttct tg 332

<210> 1687  
 <211> 347  
 <212> DNA  
 <213> Pinus radiata

<400> 1687  
 gattgatcaa acacaaatac cgtaaaattg cagcgaaaaat ccaaaattcc accatgggga 60  
 ctgtggcgga agatggcagc aagggttaca aggccgtaaa tccccatccc aaaaaggcg 120  
 tcgctcgtg gctgggtggac atgggtggaga aactgggtgt tgaaacttct gcgttgata 180  
 gttcgaagaa gcctctgcat tttcttttgg ggaacttcgc tccagtctcg gaaactgccc 240  
 ccaaactgca cctgcctgtt gttgggcaac ttcctagtgt cttggatgga gagttcgtgc 300  
 gccgttggtc ccaatccgaa attcgcaccg gtagctggct atcactg 347

<210> 1688  
 <211> 354  
 <212> DNA  
 <213> Pinus radiata

<400> 1688  
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 cagtagggag tgcactggaa ttctcatctg ccacaactgt ggtggccgtg gacatgttgc 120  
 atacgaatgc ccctctggtc gtgtgatgct gcgggacatg cgcaggcatt gatgctgcag 180  
 tttctacacc accttgactt tttagattat ctgattttga caaatctatt ttgaatttgg 240  
 aagttctttt tctgagtagt tagatcagta gacctgtcgt atcagttatt atacagtttt 300  
 cttatactag tcctttactt caagactggc tgatatactt ctattttcat atga 354

<210> 1689  
 <211> 348  
 <212> DNA  
 <213> Pinus radiata

<400> 1689  
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 tcatatggtc atcggaagt tctagtcttg tattcagcac taagcacttg tgatccaggg 120  
 gatatcatgg aaagtataaa gaaatgcaag aattcgaaaa tgcgatgctc agtggttgga 180  
 ttatctgcag aaattttatat ttgcaaacac ctctgtgagg agacgggagg attctattcc 240  
 gtggcacttg atgagtcaca tttcaaggac cttctgcttg aacattgccc tccaccacca 300  
 gccatagcag agtttgagcgt tgctagcttg gtcaagatgg gatttcct 348

<210> 1690  
 <211> 349  
 <212> DNA  
 <213> Pinus radiata

<400> 1690  
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 gaaggttacg ctgcgaataa cgatgcagaa cttctgagca aaacccttca agtggaaacag 120  
 aagttgttct atttcgatct caaggaaaac ccccgaggtc aataccttaa aatctctgag 180  
 aagacctccg gctcacggtc tacaataatt gtgccattg gtggagtgtc atggttcttc 240



gatctcttta attattatgt cgacggagat gacgaggaag ttttgagcaa ggaattgcag 300  
ctggatgccca aggtatttta tttcgatggt ggggtgaata aaaggggtc 349

<210> 1691  
<211> 339  
<212> DNA  
<213> Pinus radiata

<400> 1691  
ctgaagtgcc gtcgattggt cgggaggata gcgttttcga agttcgttgt tgagttatct 60  
cgcgagactg tagaatttta ggggtgtttt ccacaaaccg acttttcccg acttcaaatac 120  
ttgatattga agtgacatgg ccggcgagaa aagaaagatt aatagaatag ctaacgcttc 180  
ggccaggcag gtcaccttcg cgaagaggcg gagggggctg ttcaaaaaag ctcaggagct 240  
atcgatttta tgcgaagccg atgtagccct cctcgttttt tcttcaactg gaaagctgta 300  
ccagtactcc agctccagca tgaaaatgat attggacca 339

<210> 1692  
<211> 380  
<212> DNA  
<213> Pinus radiata

<400> 1692  
gaaaccatga gggctcttgcc acaaggtttg ttgagccaca acctgaatgg tcagtatttc 60  
gtgaggcgag ctttggacat ggggaactta gaggttgcaa tgcaacacat gcacattgga 120  
gctggcatcg taatgatgat gatgagccag ttaaactctga tgaagtgttg atcaataatac 180  
ttagccaatac aagagaatgt atagaaagta ccgactacag tggaaaggaaa atactaattg 240  
caccttgagt atatgcttgg agggagaagt gatctaactg taattgccaa ggcaaaacac 300  
tgagtgtgag ctcatgcacg gcaatgaatt tatggttcag tgtttagttg tatggaagta 360  
tattattcat tagacatgca 380

<210> 1693  
<211> 442  
<212> DNA  
<213> Pinus radiata

<400> 1693  
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atacgattct caccgagtac attcgagttc atggcagtg tggctggaaa gatatactcca 180  
aaagagcagg tcttaagagg tgtgcaaaga gttgcagatt gcgttggtctg aactatcttc 240  
gtccccgatat taaacgtggg aacattttctc ccgaggaaga agagctcatt attcggttgc 300  
atcgcccttct tggaaatcgg tggctctctga tagcaggacg actgcctggg cgaacagaca 360  
acgaaatcaa gaattactgg aacactcata tgagcaagaa gccatggctg tcaatggacg 420  
aatctcagtc caatacttcg ca 442

<210> 1694  
<211> 351  
<212> DNA  
<213> Pinus radiata

<400> 1694  
tttttttttt tttttcctta ctcccacctt tttgttcgtc tgccgatggg tttgtatctg 60  
atgtcaaaat tgtctgcaac gcatgctgat gttgattccc atgcccgaact acaacatctg 120  
cacaaatagg aagttaagaa taaagcgaac aataaaaagt ccagccatta gcagtaaatt 180  
ggcagatata cctcccgatg attattcgtg gaggaagtat ggacaaaagc caatcaaggg 240  
ctccccacat ccaaggggct attataagt cagcagcatg agaggttgct ctgcccggaa 300  
acatgtggag cgggtgtccag atgaaccttc catgcttatt gtgacttatg a 351

<210> 1695  
<211> 304  
<212> DNA

<213> Pinus radiata

<400> 1695

caaggccgta	aatccccatc	ccaaaaaggg	cgtcccctcg	tggctgggtg	acatgggtgga	60
gaaactggtg	gttgaaactt	ctgcgttgta	tagttccaag	aagcctctgc	atcttctttt	120
ggggaacttc	gctccagtct	cggaaactgc	ccccaatcg	cacctgcctg	ttgttgggca	180
acttcctagt	tgcttggtg	gagagtctgt	gcgcgttggt	ccaatccga	aattcgcacc	240
ggtagctggc	tatcactgg	ttgatggaga	tggaatgatc	catggtctca	gaattaaaga	300
tggt						304

<210> 1696

<211> 371

<212> DNA

<213> Pinus radiata

<400> 1696

gcgtggatgt	acaacgaata	tggatccata	gaggtcctgc	actttgggga	tttccctggt	60
ccaaagcctg	ggttaggcca	gctcttaatt	cgagtcggg	ccgctgctct	taatcctgcc	120
gactttaaga	gacggaaagg	cttattaaga	aacgcggatt	ccgattttcc	gactgtgcca	180
ggctgtgata	tgtcaggagt	ggtgggtgaa	attgggtgat	gtgtctccaa	gttcaaggcc	240
ggtgacgaga	tatacagcaa	catccagaat	ttcgcagcag	ggaggccaaa	gcagtgcggg	300
actctcgccc	agtacacagt	ggtggaggaa	ttcctggtag	cgccgaagcc	cagtaattta	360
tcatttgagg	a					371

<210> 1697

<211> 523

<212> DNA

<213> Pinus radiata

<400> 1697

ccttcattga	tatggtggag	ttgattcgcc	accatttgct	ggaagtggag	gacaatatag	60
atatagatat	tgatattgag	ggaacttcgc	cggtgttctt	cacccccact	gccattgaga	120
gtggcgatta	tattaatatt	gatgatcatg	acgatgatac	ccgagcaaat	gccagagcga	180
ccagggcctc	atgccaaaat	atcgtcagca	gaacaacatt	aaaagagaac	gcgaatgaat	240
ttacacaaca	gatccattct	tcattctctc	caagatgctc	agttatgaaa	ggagcagagg	300
cgtttcagg	aaagcaacaa	ccacgggagc	gggagaatgg	aaagaagaga	gagacaagt	360
ccagggaatt	cagaggagt	aggcggcggc	cggtgggaaa	attcacagca	gaaatcagag	420
attccgcgc	gaagggtgct	cgggtttggc	ttggaacttt	caacaccgtc	gaagaggctg	480
ctcatgcata	tgaccgcgct	gcctacagat	tcggtggagc	tcg		523

<210> 1698

<211> 471

<212> DNA

<213> Pinus radiata

<400> 1698

cgcgatagcc	gagagcaccc	ttatctcctc	cactctgttt	catacatgca	acaagctctg	60
gcagcagcaa	tgggggccca	gactatcatc	gctgcctcta	tggcatctcc	tctaacatta	120
tcaaatggcc	actatccgtt	tcagtccgag	ttcaaggggt	ccgtgggtcg	aatcccgcag	180
agggcatttt	ccttcgcgcc	tgacggccgg	gcgctgaccg	tcgtcgcaga	ggccaagaag	240
gccgttgccg	tgctcaaagg	gaattcacag	gtcgaggggt	ttgtcagtct	ctcgcaggaa	300
gacagcggtc	ccacaacagt	gaaggctcgt	ttgacaggac	tgactcctgg	gaagcatggc	360
tttcatctac	atgagtttgg	tgacacaacc	aatggctgca	tatcaacagg	agcacatttt	420
aatccaaaaa	aattgacaca	tggtgctcct	gaggatgatg	tacgccatgc	g	471

<210> 1699

<211> 483

<212> DNA

<213> Pinus radiata

<400> 1699

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tcactacaag	ccttttagcaa	gcctcacaaa	taagctttgc	agtaggatgt	ctcctcccc	120
gtcatattcc	atgtttccca	attcaggaat	gggtttaa	ccctcagtga	catcttcaga	180
accctctagt	caggtctccg	gatcgatccc	ccatcaatat	tcaggctccg	aggaagaccc	240
taaactgacg	atcgatgaaa	gaaagcagaa	gagaatgctt	tctaacagag	aatctgcaag	300
gaggtccagg	atgagaaagc	aacagcattt	ggatgaattg	agagccgaag	cagctcatct	360
cagagcagag	aacagtcata	tgctaacaaa	attcaacatt	gcttcacaga	aatacatgca	420
gctggaagaa	gagaattctc	ttctgaggtc	ctatgccatg	gatttaagcc	tcaagctgca	480
gtc						483

&lt;210&gt; 1700

&lt;211&gt; 442

&lt;212&gt; DNA

&lt;213&gt; Pinus radiata

&lt;400&gt; 1700

ttttttttga	atagaaaaaa	tataattagg	tacttttctt	tagaatgttg	cagataattg	60
cattttacttt	cctaagaagc	cattgtctaa	cttttagacca	tgatatgcag	ttactgcaaa	120
gatcttgaca	aacctaacca	atcacttata	cctactgtca	agtaaataatg	taacaaatat	180
caatttttcaa	tcaaagggtg	cattaagagt	tttaaccaac	aagggtgaagg	caatgaatct	240
ctagatctca	ctaaccta	tctgctctac	ctaccaagct	agcagtctgg	cttgaaatta	300
gcagaacttc	caatgggttat	tacaatttac	acatgtcaca	aatgtagtca	taggttcac	360
tgactttctt	gtttgcaact	gatagtaagt	acacttccgc	tggccacatt	taccacactt	420
gaattgggtct	gttgtagctt	ta				442

&lt;210&gt; 1701

&lt;211&gt; 316

&lt;212&gt; DNA

&lt;213&gt; Pinus radiata

&lt;400&gt; 1701

ctaaattcat	atgctggaca	tacgtgatgt	catggcaggt	gttcttgctg	taaagaggaa	60
aagtttggcc	aaagatatct	atttcctaca	gaatgcagaa	ggttcaggtc	tggtccatt	120
tgactgttg	ctatgcttgc	gagggatcaa	aacaatggct	ttgcgcattg	agaaacaaca	180
ggagaatgca	aggaaaattg	cagaattttt	gtcatctcat	cctctgattg	agaaagtata	240
ttatgctggc	cttcttagcc	accaggcca	caattttacat	tttttgagg	caaaaggagg	300
aggttcaggtt	cttagc					316

&lt;210&gt; 1702

&lt;211&gt; 329

&lt;212&gt; DNA

&lt;213&gt; Pinus radiata

&lt;400&gt; 1702

ataatgtcat	attttatatc	cagagacttg	aactatttgt	atggtgta	tcattattggt	60
tgacatgatt	gatatgtaca	tatgttacat	ggtattagca	tgaggatggt	gatgtttgac	120
cttattttaag	tggttcgtagg	ttgtaaaaaa	aaaaaaaaaa	aactcgagac	tagttctcct	180
cgtgccgaat	tcggcacgag	ggaacagctg	aggaagagca	agaagagggtg	ttttgcgtgt	240
aacaggcggg	tggggctgac	gggctttaag	tgccgctgtg	gtgacctttt	ctgcgctcag	300
cacagggtact	ctgatatgca	tgactgctc				329

&lt;210&gt; 1703

&lt;211&gt; 325

&lt;212&gt; DNA

&lt;213&gt; Pinus radiata

&lt;400&gt; 1703

ctcgtgccct	ggtgcaaaga	ttgtttataag	aggcaagggt	tctgtcaagg	aaggtagatt	60
acagcaaaaa	cgtgatctga	aacctgatcc	atccgagaac	gaggacttgc	atgttttggt	120
tgaggcggag	acacaggatg	ctttggaaaa	agctgccggc	atgggtggaga	anctgcttat	180
gcctgttgac	gaggggttga	atgagcacia	gcggggcgag	ttgagagagc	ttgcggcact	240

taatgggaca atacgggatg atgaattctg caggctttgt ggtgaaccaa gtcataaggca 300  
 atatgcttgc cctacaaggc ttata 325

<210> 1704  
 <211> 453  
 <212> DNA  
 <213> Pinus radiata

<400> 1704  
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 caatcaaac catggcgtct aacggacagc ttaatgcagg cactggctgt gttggtgatc 120  
 tgaccaatgt tggagatcga cgattggagg ggaagggtgc aatagtaacg ggcggggcag 180  
 cgggcatagg agaagccatt gttcagttgt tcattaagca tggagccaaa gtcataatcg 240  
 ccgacgttgc ggagaaagct ggcagaaagc ttgagcaatc cctttcaccc gctgtggcaa 300  
 cttacgtgca ctgcgatgtg agcaaagaag aggatgtaag cgcagcagtg gatgtggcca 360  
 tgcacaagta tgggtcaactg gacattatgt ataacaacgc tggaaactaac gacagcgttt 420  
 tgggtgaagag cgtagcagag tatgatatgg agt 453

<210> 1705  
 <211> 242  
 <212> DNA  
 <213> Pinus radiata

<400> 1705  
 gaaaagggtca attatcctgt gttgctacgg aaatctaaat attcaagggt atggtatatg 60  
 ccagataaga ttttctttac tccaaaagct gtcatacaaac tggattttca ctgtcctgaa 120  
 tcaaactgtt caccagaagc agtacttcta acttgtatatt ttactgcatt attggtggat 180  
 tatttaaatg aatacgggtga ctataagtgg atacagtcatt aagatgagaa ttttactgga 240  
 ga 242

<210> 1706  
 <211> 358  
 <212> DNA  
 <213> Pinus radiata

<400> 1706  
 gttttgggtt tctgttttta accttggaag gttcaatttt acagtttcta cgggaattct 60  
 catattcaat ctgttttgga gattgaacta aagatttttg tccgggtgat ttttgatta 120  
 aattcaaggc cgacgaacgt gaggtgctag ggcttttaga gtttggtatg aacctatgga 180  
 catcgttggc aagtccaagg atgacgtctc gcttcccaaa gcaaccatgt taaaattat 240  
 aaaagagatg ctgcctccag atgttcgtgt tgcaagagat gctcaggact tactggctga 300  
 gtgttgtgtg gagtttatca atctaataatc ttcagaatcc aatgaagttt gtggcaga 358

<210> 1707  
 <211> 334  
 <212> DNA  
 <213> Pinus radiata

<400> 1707  
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 atcgaacttc cggcttgggt gcaagaagct tttgcgtttt cggtttcaga ttaaagcaat 120  
 atggagtcag aggaagacaa aatatctcca gagaacaaga aaaggagatt aaaaacccca 180  
 cagcaggtcg aaggcttaga gagcttttat gctgaacata agtatccttc ggaagctatg 240  
 aaatcacagt tatcagaaga actgggatta acagagaagc aggtacaagg atggttctgt 300  
 cacaggaggc ttaaggataa aaggctcatg aagg 334

<210> 1708  
 <211> 288  
 <212> DNA  
 <213> Pinus radiata

<400> 1708  
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 tcctctcaca atcatggaag gcgagtcgt ctttgaatct gtgcaaaacc cactggatcg 120  
 cctgaacact ggaatatgg accatggttg tgccattac aggagacgat gtcggattcg 180  
 ggccccttgt tgcaatgaga tctatgattg taggcactgt cacaatgaag ccatgagcca 240  
 tctaaaggac cccttgctgc gccatgagct cccaagatca aaagttga 288

<210> 1709  
 <211> 406  
 <212> DNA  
 <213> Pinus radiata

<400> 1709  
 gttccccgtc tcctccgtct gctaggcatt tctctgcat tcttcttctt ctgctcgggg 60  
 tctctctggt gaaatcgctc ccgcaggagg agggctgagg gcagggctcg gctcggtcgc 120  
 gttcggttcg gcaggagtta tctcagggtt tttctcttgc tttctctgctc cttcggtactc 180  
 gggcttacag ttacagcatc tggaaaatgg cgtcacagga gagctcaaaa atgcaagagg 240  
 aaggagtgag gagacaagtg ccggaagggc ccattcactg tttgaacaac tgcggcttct 300  
 tcgggagcgc ggccaccatg aacttggtgt ccaagtgtca cagagagctt aacgccaac 360  
 caccttcttt ttcttctcac ttgaaacctc agcaacctac gcttga 406

<210> 1710  
 <211> 434  
 <212> DNA  
 <213> Pinus radiata

<400> 1710  
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 cctagtgtac caacattgca tcttcccgtt ggcagtcctc aagttggtct tcaagctagt 120  
 cgctccgag catcacttaa tgccagagat gtacctcttg aggaattgac cttagattcg 180  
 gattgtgaag ggcaacttat aaatgatttt gcttctcttt caggatctgg aaacaccttg 240  
 atgaggtctg gaaaatacaa gagtcatggc tgtagtattg ctccagttaa tcttgaggat 300  
 ctatttgctt ctgagatgtc tcttagggga ccgtgccttg aaccttcctg gttttctcaa 360  
 ataagttctc aaattcagtc acataaggca gctcaagttc agcctcaggt gcaaaccatca 420  
 attagtaatc agat 434

<210> 1711  
 <211> 387  
 <212> DNA  
 <213> Pinus radiata

<400> 1711  
 ttactttaca caccacctgg aaatgaagat cgtcacttgc tattcggtga tgagttacgt 60  
 ggtcgcttag tgactcttct aggggggacgt gctgcagagg aagtggtata ctgaggtcgt 120  
 gtttccactg gtgcacttga tgatataaag cgtgcaacag atatggcata caaagctgtc 180  
 gctgaatatg gtcttaacaa gtccataggt ccaatttcat tggcgacttt gtctggtggc 240  
 ggtcttgatg agtctggagg agcaatgccca tgggccaagg atcaggagaca tatggttagac 300  
 cttgttcaaaa gagaggtgaa aattttgcta caatcggtt tgacaatggc actccttgctc 360  
 atacgctcta atcccactgt acttgag 387

<210> 1712  
 <211> 440  
 <212> DNA  
 <213> Pinus radiata

<400> 1712  
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 atctgaccaa tggtggagat cgacgatttg aggggaaggc tgcaatagta accggcgggg 180  
 cagcgggcat aggagaagcc attgttcagt tgttcattaa gcatggagcc aaagtcataa 240  
 tcgccagcgt tgcggagaaa gctggcagaa agcttgagca atccctttca cccgctgtgg 300

caacttacgt	gcactgcat	gtgagcaaag	aagaagatgt	aagcgcagca	gtggatgtgg	360
ccatcgaaaa	gtatgggtcaa	ctggacatta	tgtataacaa	cgctgggaact	aacgcacagct	420
ttttggtgaa	gagcgtagaa					440

<210> 1713  
 <211> 446  
 <212> DNA  
 <213> Pinus radiata

<400> 1713						
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aagaagaaaa	tacaagatgg	gcagatctcc	ttgctgctca	aaagaagggc	tcaaccgtgg	120
ggcctggacc	aaaagggagg	atatgattct	ctccgaatac	attcgaattc	atggcgatgg	180
cggtatggaga	aatatgcccc	aaagagcagg	tcttaaaccg	tgtggaaaaga	gctgcagatt	240
acgatggctg	aactatcttc	gccccgacat	taaacgtgga	aacatttccc	ctgatgagga	300
ggaactcata	attcggctcc	ntcgcttct	tggcaatcga	tggtcgctta	tagcaggaag	360
attaccaggt	cgaacagaca	acgaaatcaa	gaactactgg	aacactcata	tgagcaagaa	420
gctgcttcca	ttgaacgaat	ctcaac				446

<210> 1714  
 <211> 519  
 <212> DNA  
 <213> Pinus radiata

<400> 1714						
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gctactgtca	gctatatgat	ggacctgtgt	tttcatcact	ggctcacttc	acctgtttga	180
gtatctgcca	tttttggtatg	tttgtgtaag	cttggctaaa	taccagagac	acaaagaaac	240
cgctctgtag	ccggagttat	cgaaactatt	tacaatgcc	cgggtgaaat	ttatttccag	300
gaacttcatg	gacatgggtg	cagcattacc	ggctgcaaag	ttagatcggc	ttatgatag	360
tcatttcaatt	tgcgaagcgg	ttctgaggtc	ctgactcct	gtgccaaaaga	aatatgtatt	420
gcaactatta	tatatgtacg	ttgcgggtgcc	tgccaaatca	ctggaggaat	gggttctttc	480
agatggcctg	tctaagcaca	aagcagcaat	tgataggtt			519

<210> 1715  
 <211> 162  
 <212> DNA  
 <213> Pinus radiata

<400> 1715						
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gtgacagaag	caagggagcc	tggaccaagg	aagaggatga	caggcttacc	caatatattc	120
aggctcatgg	agaaggatgc	tggcgttctc	tccccagggg	cc		162

<210> 1716  
 <211> 481  
 <212> DNA  
 <213> Pinus radiata

<400> 1716						
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ggtagggctc	cgtgaaattg	cgcatgtcat	gaatgtgctc	gtctgtaagt	ggctgcttta	120
cgccggcgaa	ggttcggacc	ctgtgggtgg	ggtgaattga	ctgtaagagg	ccgccgatct	180
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ctggctgtca	gacgccactg	cagctaccgc	cgggggcgaa	gtcgatacgc	tgtgctctgt	300
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cttcccacgg	caggaagaag	gcggtcgtct	gcggcatttc	ttacagatat	tcccagcacg	480
a						481

<210> 1717  
 <211> 546  
 <212> DNA  
 <213> Pinus radiata

<400> 1717  
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 ctgcactgtt tgccggggata tgattccaaa aagtcgttct atggaacacc accaggatac 120  
 ccatgctcct gtatcttggt cacagtgtgg cgaatccatt gaacgtgaat tactagtcac 180  
 ccatgagcgt gacaagtgtc ttcatagaat tgttacatgt gggtattgag agtttccact 240  
 gccagctgtt gatcttgata aacatctgaa catctgtggg aatagaacag agtattgtaa 300  
 tccgtgcagc aagtatgtga gattgtgtga aaagctagct catgatttac agttccatga 360  
 aggaaattct gatgacactg gggattcttc aagagagcag cacggggaaa ataatacacag 420  
 ctcaccagca gcagaactgt ctcggagagt tcctagggaa cggccacgag atacctcgca 480  
 gcgtcggttg cttgtcacat tagcaatcac aggaattgcc ataattatag gatcatttgt 540  
 tcttca 546

<210> 1718  
 <211> 631  
 <212> DNA  
 <213> Pinus radiata

<400> 1718  
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 tccgaccctt ccggtctaaag ctgctgcatt tctgtgtgta ttgaagatgg ggagatctcc 120  
 ctgctgtgaa aaagctcata caaacaagg ggctgggacc aaagaagagg acgatcgctt 180  
 catcgccac attcgaaact acggcgaagg ttgctggcgc tcgcttccca aggccgcagg 240  
 gctgatgcgc tgcgggaaga gctgcaggct ccgatggata aactacctgc gtcctgatct 300  
 gaagcgtgga aacttctcag aagaagaaga cgaactcgct atcaaactcc actccctact 360  
 cggcaacaag tgggtctctta ttgcaggcag attgcccggg cggacggaca acgagataaa 420  
 gaactactgg aatactcaca tcaagagaaa attgctaaac aggggactcg acccccagtc 480  
 ccattcgccc ctgcggcagc cgcacaacag caacacgacc tgccctctc tgccgcctct 540  
 cgagcacgaa attcttgtgt tccagaggcc aagaacgccg gagatagcag atttctttca 600  
 atacgagcgc tctgaaagct cgccgatgga a 631

<210> 1719  
 <211> 561  
 <212> DNA  
 <213> Pinus radiata

<400> 1719  
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 cctccttcca tctccagcgt ccgatctgat cttatcaaag gaagccctta aatccctcca 120  
 gctttccaag cgcgggttct gttgctgtat cccagggtccc tggatcatatg gcggaagctg 180  
 gcagcccggg cagccaggaa agtcctcggt ccggggaaca aagccccag tccagcgtgc 240  
 gggagcagga caggttccta cccatcgcca acattagccg catcatgaag aaggcgtgc 300  
 cggccaacgg caagatcgct aaagacgcca aggagaccgt gcaggagtgt gtctcggaat 360  
 ttatcagctt catcaccagc gaggccagtg acaaatgcc gcgagaaaag aggaagacaa 420  
 tcaacggcga tgacttgctc tgggcatga gcacgtagg gtttgaagat tatatcgagc 480  
 ccttgaaggt ttacttgctc atgtacagag aggcggaggg tgacaataag ggatcttcaa 540  
 aatctggagt agaccaatat g 561

<210> 1720  
 <211> 497  
 <212> DNA  
 <213> Pinus radiata

<400> 1720  
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 aatttcgctg cccaatcgaa ccatggagtc taaggacag gctaatacat ctgttgcttc 120  
 tgtttgtaat ctcagcaaga atggagagcg acgattggaa gggaaagttg ttatagtaac 180

gggcggggca	gcgggcatag	gagaagccat	tgttcagctg	ttcgcaaagc	acggagcgaa	240
agtcataatc	gcagacgttg	cagagaaagc	tggcagaaag	cttgcagaat	ccctttctcc	300
agcatcggca	acttatgtgc	actgtgatgt	cagcaaagaa	gaagacgtga	gcgcggctgt	360
ggatctggct	atggataagt	atggccaact	cgacattatg	tataacaacg	ctggaactaa	420
cgacagcttt	ctggtgaaga	gcgtggcaga	gtatgatatg	gagcaattcg	atcgagtgat	480
gaacgtaaac	gtgaaag					497

<210> 1721  
 <211> 394  
 <212> DNA  
 <213> Pinus radiata

<400> 1721						
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tgcacacttg	aaccgctttc	tttacaattt	tgcaggtggg	aaagatgtgt	catttcctaa	180
gcccttgtag	ccacttgtag	acccggcagt	tttgggtggag	acttatgaac	aaggcgagag	240
tgtggcacgc	tatgttgatc	agccagaagc	aaaccatagt	tttaatagat	cacttgctca	300
cactggcacg	catactctcc	tcaagatgct	actgggtggat	aatttcattcc	atgcagatat	360
gcacccctgga	aataatttgg	ttcgaatggg	acaa			394

<210> 1722  
 <211> 394  
 <212> DNA  
 <213> Pinus radiata

<400> 1722						
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cgattagtca	ggattgggaa	cccgttgtca	tcaggaagaa	ggctcctaac	gctgcagcca	120
agaaggacga	gaaggctgtc	aatgctgccc	gtcgaactgg	aggccctatt	gaaactatca	180
agaaatttaa	tgcaggatca	aacaaagcag	cctcgagcag	caccaccttg	aacaccaaga	240
agcttgatga	tgagacagaa	gttctcgctc	atgaaagagt	ttcatcagat	ttgaagaaaa	300
acataatgca	agcccgttta	gataaaaagt	tgacacaagc	ccagcttgca	cagcaaatca	360
atgaaaaacc	tcagattatt	caagagtacg	agtc			394

<210> 1723  
 <211> 317  
 <212> DNA  
 <213> Pinus radiata

<400> 1723						
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agggcagggc	tcggctcggc	tcggttcggt	tcggcaggag	ttatctcagg	gtttttctct	120
tgcttttctg	cgcttctgga	ctcgggctta	cagttacagc	atctggaaaa	tggcgtcaca	180
ggagagctca	aaaatgcaag	aggaaggagg	tgggagacaa	gtgccggaag	ggccatttca	240
ctgtttgaac	aactgcggct	tcttcgggag	cgcgggccacc	atgaacttgt	gctccaagtg	300
ctacagagag	cttaacg					317

<210> 1724  
 <211> 265  
 <212> DNA  
 <213> Pinus radiata

<400> 1724						
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tctccctgct	gtgaaaaagc	tcatacaaac	aaaggggcgt	ggaccaaaga	agaggacgat	120
cgcctcatcg	cccacattcg	aactcacggc	gaaggttgct	ggcgctcgct	tcccaaggcc	180
gcagggctga	tgcgctgcgg	gaagagctgc	aggctccgat	ggataaacta	cctgcgtcct	240
gatctgaagc	gtggaaactt	ctcag				265

<210> 1725



<211> 284  
 <212> DNA  
 <213> Pinus radiata

<400> 1725  
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 tctcctctcc tgcatttctc aaactcaaact acctctcctc tcacaatcat ggaaggcgga 120  
 gtcgtctttg aatctgtgca aaacccactg gatcgccctga acactggaaa tatggaccat 180  
 gggtgtgccc attacaggag acgatgtcgg attcggggccc cttgttgcaa tgagatctat 240  
 gattgtaggc actgtcacia tgaaaccatg agccatctaa agga 284

<210> 1726  
 <211> 308  
 <212> DNA  
 <213> Pinus radiata

<400> 1726  
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 cagggcacca tgggcccagc tccttgctgt gataaaatgg gagtaaagaa agggccctgg 120  
 actctagacg aagataaaaat actgggtcgac tacattacca aacatggcca tggcaactgg 180  
 cgtgcactgc ccaagcaagc agggctcctg cgatgtggaa agagttgtcg cctgcgggtg 240  
 acgaattacc tgaaaccgca catcaaaaaga ggaattttta gtccagaaga ggaagatcaa 300  
 attattaa 308

<210> 1727  
 <211> 338  
 <212> DNA  
 <213> Pinus radiata

<400> 1727  
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 gctggcagga agcttgagga atcactttct cccgctgtgg caacttacgt gcaactgcgat 120  
 gtgagcaaa aagaagatgt gaccgcggcg gtggatgtgg ccatggataa gtatggccaa 180  
 ctggacatta tgtataacaa cgctggaact aatgacagct ttttggtgaa gagcgtggta 240  
 gagtatgata tggagcaatt cgatcgagtg atgaatgtaa acgtgaaagg agtgatgcac 300  
 ggcattaagc accccgcccg cgttatgatc ccgcggaa 338

<210> 1728  
 <211> 350  
 <212> DNA  
 <213> Pinus radiata

<400> 1728  
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 aacaccatct accaagggtt tgtattttga atctatctca aacccaactc tggcagttgc 120  
 agacatccca tctctgtctg ccattgctca tgagaaaaat gtcaagggtg tgggttgataa 180  
 taccttttct cccatgatca tatcccctgc aaagcttggt gctgatgttg ntattcacag 240  
 catttcaaaa tatatcagtg gaggtgctga tgttatagca ggagcaatat gtgggacctgc 300  
 agatctgata aattccatga tggatctcca tcagggaacc ttgatgctct 350

<210> 1729  
 <211> 333  
 <212> DNA  
 <213> Pinus radiata

<400> 1729  
 ccagtccatg gtttcaagtt agttagtcca ataaagcaga gatgggtcgt gctccatgct 60  
 gcacaaaagt tgggtctcaac aaggagcat ggtctgccga agaggatagt cttctgggaa 120  
 gatataattca aactcatggt gaaggcaatt ggaggtctct gcccaagaaa gcagggtctgc 180  
 gaagatgtgg aaagagctgc agattgcgtt ggctaaacta tcttcggcca tgtatcaagc 240  
 ggggaaatat tacaacagat gaagaagaac ttattatcag aatgcatgct ctcttgggca 300

accgatgggtc gataatagca gggagagtcc ccg

333

&lt;210&gt; 1730

&lt;211&gt; 508

&lt;212&gt; DNA

&lt;213&gt; Pinus radiata

&lt;400&gt; 1730

ctngtgccga	agaaatctga	atcgctcggt	tcgtgggtcga	caggaagcca	cagtgggagg	60
cctgagaaac	tgggtgtggt	ggtcgggagt	gtcaagattg	tgacgggtggg	cggaccagcg	120
tctagtttgt	gttgggtggc	ggcattagaa	ggggcagagg	gggcttttca	gtgcatggga	180
ttatgggcaa	cgaaggcgcg	gcatcgatgc	ggctatgggg	cgacgataat	aattccatga	240
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ccaatccctc	ttcgctaccc	tcgcccggca	cttcccgtcg	tctgccgcag	tgttgctatc	360
gccacgccc	tcaatcagga	cacgctgcag	caacgcttgc	tggcggttgt	ggagggagcg	420
gctgagtgtc	ggacttatgc	catattctgg	cagttgtcga	gcgatgccag	cggcggctcg	480
gagcttgtct	ggggcgacgg	gtactaca				508

&lt;210&gt; 1731

&lt;211&gt; 411

&lt;212&gt; DNA

&lt;213&gt; Pinus radiata

&lt;400&gt; 1731

cggagtga	tcatttgctg	ccgtcactgc	tgccaagggt	tgttactgtt	agattttgtt	60
atancggaca	atggcttcaa	cagacataga	tatgattccc	gtgccctctg	gcgagggttc	120
cagctctcaa	gcgggaccaa	gcgcttccac	caagaaggcc	aaacggttctg	aaatcaagaa	180
gtggaatgct	gtagcccttt	ggcggtggga	tattgtgggt	gataattgtg	caatttgcatg	240
aaaccacatc	atggacctct	gtattgagt	tcaggcaaat	caagcaagt	caacaagtga	300
agaatgtact	gttgcattggg	gtgtttgcaa	tcacgccttt	catttccatt	gcataagtgc	360
gtggctcaag	acacgacaag	tctgcccatt	agataataag	tgagtgggag	t	411

&lt;210&gt; 1732

&lt;211&gt; 390

&lt;212&gt; DNA

&lt;213&gt; Pinus radiata

&lt;400&gt; 1732

cgaaactcga	atcgatatgc	tttgtggccg	gttcaaatat	ttgagctggc	ttagcttctc	60
tgggttcagaa	atggcggact	aaagtaatag	tgtgccccga	ggctctgggt	tcgaatctcg	120
ttggcgtgaa	aggtcaaatt	tttctctcga	gtttcattga	ttctgaaaaa	ctggcatagc	180
tatggcgatg	agcaatggga	gattgtgtga	agatttggat	aggattaagg	ggcccgtgga	240
gccccgagga	ggacgcgtcg	ctgcagaggc	ttgttcagaa	atacgggccg	aggaactgga	300
ccctgataag	taaaggaatc	ccggggcgat	ccgggaaatc	gtgcaggcta	cgggtggtgca	360
atcagctgac	cctcaggtgg	agcacagacc				390

&lt;210&gt; 1733

&lt;211&gt; 277

&lt;212&gt; DNA

&lt;213&gt; Pinus radiata

&lt;400&gt; 1733

atttactgga	accattgttg	gaataagtga	tgctgaccc	gtgaactggc	cgaattcaaa	60
gtggagatgc	ctcaaggtag	aatgggatga	aatatcagca	attgcacgac	cagagagagt	120
ttccccgtgg	aaattagaac	cttcattaac	tccagtggca	gtgaatcctc	tgccagtagc	180
caggggcaag	aggcctcggc	caaatatatt	accttcattc	tccgatttat	cagtgcattga	240
caaggcccca	gtggattcta	ctcaggtgca	caggttt			277

&lt;210&gt; 1734

&lt;211&gt; 221

&lt;212&gt; DNA

&lt;213&gt; Pinus radiata

&lt;400&gt; 1734

gttgcaggga	aggggtgccc	tgatcacagg	aggcgccagt	ggaatcggag	aggctaccgc	60
caagttgttc	gtggagaatg	gagcgaaagt	agtgattgca	gaccttcagg	acgaccatgg	120
aaaccgtctt	gctcaatccc	tcgctcccaa	cgctgtcttt	ttccaactgcg	atgtctccaa	180
agaggcggac	gtttccgccc	tgctggactt	ggcgctggag	a		221

&lt;210&gt; 1735

&lt;211&gt; 316

&lt;212&gt; DNA

&lt;213&gt; Pinus radiata

&lt;400&gt; 1735

tgggctgttc	ccaggagagg	agagcctcag	ctgtctcgat	ctggcggttaa	ggggttacag	60
aagaagaatt	tcgaagatgg	ttagatcttc	ttgctattca	aagcaaggtc	ataggcgtgg	120
gatttggacc	cctatggagg	atatgattct	ctctgaatac	nttcgaattc	atggcagtga	180
tggatggaaa	aatatcgcta	aacgagcagg	tcttaaacga	tgtggaaaga	gttgcagatt	240
accgttggtt	gaactatctt	cgccccgaca	ttaaactgtg	taacatttct	cctgatgagg	300
aggacctcat	tattag					316

&lt;210&gt; 1736

&lt;211&gt; 464

&lt;212&gt; DNA

&lt;213&gt; Pinus radiata

&lt;400&gt; 1736

cagcatcggtg	gctcttccc	gcagacctag	taagccgact	actgtaaatt	tattctttta	60
gggttacaga	agaagaaaat	acaagatggg	cagatctcct	tgctgtctca	aagaagggtc	120
caaccgtggg	gcctggacca	aaagggagga	tatgattctc	tccgaataca	ttcgaattca	180
tggcgatggc	ggatggagaa	atatgcccga	aagagcagg	cttaaactgg	gtggaaagag	240
ctgcagatta	cgatggctga	actatcttcg	ccccgacatt	aaactgtggg	acatttcccc	300
tgatgaggag	gaactcataa	ttcggtctca	tcgcttctct	ggcaatcgat	ggctcgcttat	360
agcaggaaga	ttaccaggtc	gaacagacaa	cgaaatcaag	aactactgga	acactcatat	420
gagcaagaag	ctgcttccat	tgaacgaatc	tcaacccaag	actt		464

&lt;210&gt; 1737

&lt;211&gt; 361

&lt;212&gt; DNA

&lt;213&gt; Pinus radiata

&lt;400&gt; 1737

aaggaggcat	cggcagcgtt	gttcctcctc	ctctcctctc	ctgcatttct	caaactcaaa	60
tacctctcct	ctcacaatca	tggaaaggcg	agtcgtcttt	gaatctgtgc	aaaacccact	120
ggatcgccctg	aacactggaa	atatggacca	tgggtgtgcc	cattacagga	gacgatgtcg	180
gattcgggcc	ccttggttga	atgagatcta	tgattgtagg	cactgtcaca	atgaagccat	240
gagccatcta	aaggaccctt	tgctgcgcca	tgagctccca	agatacaaa	ttgaacgggt	300
tatttgttct	ctctgtgaca	ctgagcaaaa	tgtcaagcaa	gtttgcgaaa	actgtggtgt	360
t						361

&lt;210&gt; 1738

&lt;211&gt; 371

&lt;212&gt; DNA

&lt;213&gt; Pinus radiata

&lt;400&gt; 1738

gcttttctgt	ttcattcgat	ttcgattgtg	tagtgaagag	catggccgaa	caggctcttg	60
aaggaggtca	gccagtggat	ctcgagaagc	atccttcagg	catcgttccc	accctccaga	120
atatagtgtc	cactgtaaac	ttggattgca	aattggactt	gaaagccatt	gctcttcaag	180
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ccaaaactac	agcactgata	tttgcatcag	ggaagatggg	ttgcacaggt	gcaaaaagtg	300

aacaacagtc aaaacttgct gcaagaaagt atgctcgat tatccaaaaa ttgggctttc 360  
ctgctcattt c 371

<210> 1739  
<211> 589  
<212> DNA  
<213> Pinus radiata

<400> 1739  
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cactcttcgc atccagccct tcaaacttcc gcctcttggc ccccatgatg cgaagggtgcg 120  
catgaaggct gtgggtatct gtggcagtgca cgtccactat ttgaggacat tacggtgtgc 180  
ggactttatt gtaaaagagc caatggtgat tggatcatgag tctgctggaa taattgagga 240  
ggttggcagt gaagtgaac atctggttcc tggtagccgc gtagctttgg agcctggaat 300  
atcgtgttgg cgttgtgacc aatgtaagcg aggtccctac aatttgtgtc ccgagatgaa 360  
gttttttgca acacctcccg tgcattggtc cttggccaat cagattgttc atcctgcaga 420  
tttatgtttc aagttgccag ataatgtaag tctcgaggaa ggtgccatgt gtgaaccact 480  
cagtgttggg gttcatgctt gtccgctgct ttctgtaggc cctgagacaa atgtcttggt 540  
aatgggggca ggtcctatcg gccttgtcac cgtgctgtct gcacgtgca 589

<210> 1740  
<211> 473  
<212> DNA  
<213> Pinus radiata

<400> 1740  
ctttgccgtg ttcggttctg attcagggtt tcgggagctt gttgtgtggt gttctgcagg 60  
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atcggcgcaa atttcaacgg cttataaact atttgggaag cagtactctg gatttttctc 180  
ccggaacgga tcggagtggt ggaagcgtaa taatcgctct gaatttgtct tctgcaagat 240  
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agccggttga tttctccggg attaaaggat ggatcaagaa aactggaaca tcggagctga 360  
tggcactggc tgccaagctc cagaagggca cactctttgc gccataaact gcggcttttt 420  
tggcagttcg gcaacgagaa acctgtgttc gaaatgttac agggatctga tta 473

<210> 1741  
<211> 546  
<212> DNA  
<213> Pinus radiata

<400> 1741  
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tgagatcatt atttggtcag tttggagaac ttgtgcatgt caaaatacca gtgggaaaac 120  
gttgtggatt tgttcagttt aataacaggg cttctgcaga ggaagcattg caaatgctgc 180  
atggtacagt tcttggtcag caagccattc gtctttcctg gggacggagt cctgcaaaca 240  
aacaaactgc tgggtgggtt caaccccaac aaccagatcc aaatcaatgg aatggagctt 300  
attatggtta cggacaagga tatgatgcag gttatggtta tgcaccacaa cctcaggatc 360  
ccaatatgta cagttatgcc ccttatgcat atggaaatta tcagcagcag taacatttac 420  
ttgggttcag gctcttctgt ggacgtggaa atatgggttc attcatagag ctgtctctgt 480  
aaacagttgt ttttaacggg catccagtca acctatctat attaaattta atgaagagga 540  
aagtct 546

<210> 1742  
<211> 348  
<212> DNA  
<213> Pinus radiata

<400> 1742  
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tgggtgccctc aagtagcgac gttccaatgg tggaagcagt agcagcagcg gagacggcca 120  
ttggcaccgc tccatccagc tcggcagaac aggaggtgga gaaacatgaa caggacgagg 180

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cgggctttaa	gtgccgctgt	ggtgaccttt	tctgcgctca	gcacaggtac	tctgatatgc	300
atgactgctc	ttttgactac	aagactgccg	gccgcctcgc	cattctca		348

<210> 1743  
 <211> 300  
 <212> DNA  
 <213> Pinus radiata

<400> 1743						
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catgaaggca	ggctatatattg	taggcatcat	agctctcaac	tttttaggga	gaaaggtaac	120
ttcagccanc	tttcaaaggc	aacacctaca	aaaggggtga	ctgataactc	agacacagac	180
nacaagtgat	cattcgggcc	agatttttgc	tgacagagtt	gtagtgtgtt	attgattcat	240
ttcatacatt	tgatatgcaa	gcctgtacaa	tatcctgtga	ctgttaaagg	cattcttttg	300

<210> 1744  
 <211> 355  
 <212> DNA  
 <213> Pinus radiata

<400> 1744						
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aagaagaaaa	tacaagatgg	gcagatctcc	ttgctgctca	aaagaagggc	tcaaccgtgg	120
ggcctggacc	aaaagggagg	atatgattct	ctccgaatac	attcgaattc	atggcgatgg	180
cggatggaga	aatatgcccc	aaagagcagg	tcttaaacgg	tgtggaaaga	gctgcagatt	240
acgatggctg	aactatcttc	gccccgacat	taaacgtgga	aacatttccc	ctgatgagga	300
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<210> 1745  
 <211> 294  
 <212> DNA  
 <213> Pinus radiata

<400> 1745						
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tctgtgatat	gtctaaattg	tgggagaaac	ttgaccgaga	ggttgctttg	actccaatgc	120
ctgaagctta	ccagaacaaa	atggtttgga	tcttatgcaa	tgatttggtg	gtaacttctg	180
aagtaaattt	tcacattgtt	gcacacaagt	gtcaaagttg	caattcttat	aacacccggc	240
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<210> 1746  
 <211> 316  
 <212> DNA  
 <213> Pinus radiata

<400> 1746						
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gacccttccg	gctaaagctg	ctgcatttct	gtgtgtattg	aagatgggga	gatctccctg	120
ctgtgaaaaa	gctcatacaa	acaaaggggc	gtggaccaaa	gaagaggacg	atcgctcat	180
cgccacatt	cgaactcacg	gcgaagggtg	ctggcgctcg	cttcccaagg	ccgcagggtc	240
gatgcgctgc	gggaagagct	gcaggctccg	atggataaac	tacctgcgtc	ctgatctgaa	300
gcgtggaaac	ttctca					316

<210> 1747  
 <211> 263  
 <212> DNA  
 <213> Pinus radiata

<400> 1747						
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gatttggacc	cctatggagg	atatgattct	ctctgaatac	attcgaattc	atggcagtga	180
tggatggaaa	aatatcgcta	aacgagcagg	tcttaaacga	tgtggaaaga	gttgcagatt	240
acgttggttg	aactatcttc	gcc				263

&lt;210&gt; 1748

&lt;211&gt; 145

&lt;212&gt; DNA

&lt;213&gt; Pinus radiata

&lt;400&gt; 1748

ttcggtcgga	gaattgtggg	tgggagcccc	accggaggag	tganggaaac	tcaagagatg	60
ttggactttt	gtgcagagca	taacatcagt	tgcatgattg	aaaacattgc	aatggattac	120
cgtgaacaca	gcaatcgaac	gatta				145

&lt;210&gt; 1749

&lt;211&gt; 206

&lt;212&gt; DNA

&lt;213&gt; Pinus radiata

&lt;400&gt; 1749

ctgggtgtgaa	tcacatcgga	gatggcattc	gcaggaacac	agcanaagtg	caaggcatgc	60
gagaagacgg	tgtacgtggg	ggatcagctc	acagccgatg	gttcagtctt	tcacaaggcc	120
tgcttcggct	gccatcattg	caatggcacc	ttaaagctca	gcaactattc	ttcttttgaa	180
ggggtgctgt	actgcaaacc	tcactt				206

&lt;210&gt; 1750

&lt;211&gt; 263

&lt;212&gt; DNA

&lt;213&gt; Pinus radiata

&lt;400&gt; 1750

gttaaatttg	accccttcaa	tgcgttttat	ggttcagcct	ctatgttaat	ttgacacagt	60
gagctgaaat	attgcggctg	gatgtgtaca	ttcacgacta	tctcataaaa	cggaatcttc	120
ttgcatctgc	caagacattt	atgacggagg	caaaagtttc	tccagaacca	gtcgcaattg	180
atgcacctgg	aggctttttg	tttgaatggg	ggctctgtgt	ttgggatatt	ttcatctcac	240
ggacaaatga	gaagcactct	gag				263

&lt;210&gt; 1751

&lt;211&gt; 321

&lt;212&gt; DNA

&lt;213&gt; Pinus radiata

&lt;400&gt; 1751

ccaatatggg	ggcagatagt	atggttcctg	ttcacactcc	tgaagttatt	gagcattctt	60
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&lt;210&gt; 1752

&lt;211&gt; 316

&lt;212&gt; DNA

&lt;213&gt; Pinus radiata

&lt;400&gt; 1752

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gtgacagaag	caagggagcc	tggaccaagg	aagaggatga	caggcttacc	caatatattc	120
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<210> 1753  
<211> 335  
<212> DNA  
<213> Pinus radiata

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gaggaggagg cggcggagga gaagggcagt cgacgaagaa tggcaatggc aactacatta 180  
gagagcagga tcgcctgctc cccatagcga acgtggggcg gataatgaag cgggcgctgc 240  
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<210> 1754  
<211> 349  
<212> DNA  
<213> Pinus radiata

<400> 1754  
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gtgttcgggtg gagaggtgga gccgcgcgtg ccagtggaca atttgatgca tatcttggat 180  
ctggaggaca attcctggtc cgtggcggat gccaaaggag aggcaccgcc tcccagagtg 240  
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<210> 1755  
<211> 289  
<212> DNA  
<213> Pinus radiata

<400> 1755  
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tgtcgggaat gttcccatgg acatggcggc agatcgccctg ctgagccttt tttctcagta 180  
tggagagatc gaagaggggc cactaggggt tgataagcaa tcgggcanct caaggggttt 240  
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<210> 1756  
<211> 235  
<212> DNA  
<213> Pinus radiata

<400> 1756  
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gaatcagatg gcagttgccc tcggtggaag ggtggcagaa gaagttattt ttgggaaaga 180  
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<210> 1757  
<211> 457  
<212> DNA  
<213> Pinus radiata

<400> 1757  
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caactgtgaa	gcccattgtt	ttagttccag	agcctgtact	tgataaaatt	tgggagatta	360
atgtcaaggc	cactattctt	cttgtccagg	aagctgctgc	tcacttgtca	caagagtcac	420
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&lt;210&gt; 1758

&lt;211&gt; 345

&lt;212&gt; DNA

&lt;213&gt; Pinus radiata

&lt;400&gt; 1758

catgtctttg	attcgggcaa	gcagacatgg	agtaagccta	tggtgaaagg	aacccccgcc	60
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acagatggga	agaaccctct	acgggatttg	catatgctgg	acactactac	aaatacatgg	180
gtgcaacctc	acgtaagtgg	tgaaggaccg	gcagctcgtg	aggggcacag	tgctgcactc	240
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atatattaca	acgaccttta	catactagac	acagttaact	taatt		345

&lt;210&gt; 1759

&lt;211&gt; 544

&lt;212&gt; DNA

&lt;213&gt; Pinus radiata

&lt;400&gt; 1759

gagcaaccca	cattgcattg	attgcactac	agtttcagcg	attttcaggt	catctcaggt	60
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aagtgatgaa	cagcccaatg	ggccctttaa	taatgcccac	gataatgcag	tttgaagcta	540
ctct						544

&lt;210&gt; 1760

&lt;211&gt; 375

&lt;212&gt; DNA

&lt;213&gt; Pinus radiata

&lt;400&gt; 1760

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tcacttacat	gagtt					375

&lt;210&gt; 1761

&lt;211&gt; 333

&lt;212&gt; DNA

&lt;213&gt; Pinus radiata

&lt;400&gt; 1761

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agtcccagtt	gggcccgtccg	tgacatatgg	agtattcatt	tgtcttgatt	gttcagcaat	240
gcatcggagt	cttggtgttc	atgtcagttt	tggagggtcta	caaatctcga	tacatgggacc	300



atggagcagt tgaaattgat gagctttggt ggt

333

&lt;210&gt; 1762

&lt;211&gt; 331

&lt;212&gt; DNA

&lt;213&gt; Pinus radiata

&lt;400&gt; 1762

ctcgtgccc	actataggcc	gcaccaccct	cagccgtttc	ttctttgcct	ctctttctct	60
tgtgggcat	gtgacctatg	gcctattcat	tttctgcact	ggatctgaga	gcgaggggga	120
agttaacgag	agccctggct	ccacgaattt	tgaaggcggc	gcggnccat	gcgagagcag	180
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&lt;210&gt; 1763

&lt;211&gt; 568

&lt;212&gt; DNA

&lt;213&gt; Pinus radiata

&lt;400&gt; 1763

ccggccgccc	cctccgacct	gcctgatgga	acacagtggc	gctacagcga	gttcttgaac	60
gccgtgaaga	agggtaaggt	ggagcgcgtc	cgtttcagca	aggacggcag	ctacctccaa	120
ctgagcgccg	tcgatgggag	gcgtgccact	gtaaccctgc	caaacgaccc	ggacctggtg	180
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gtggcaggcg	ctgaccaggc	caagctggag	cttcaggagg	tgggtggattt	cttgaaaaac	480
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ccggggacgg	gcaagactct	actggccc				568

&lt;210&gt; 1764

&lt;211&gt; 351

&lt;212&gt; DNA

&lt;213&gt; Pinus radiata

&lt;400&gt; 1764

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acaatactgc	agaaggagat	tcccagtaca	gtggtttacg	aggatgagaa	ggtacttgca	120
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cgatggctct	actggatgcc	aatctgtgac	catttacata	ttcatctact	c	351

&lt;210&gt; 1765

&lt;211&gt; 462

&lt;212&gt; DNA

&lt;213&gt; Pinus radiata

&lt;400&gt; 1765

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cgaatacatt	cgaattcatg	gcgatggcgg	atggagaaat	atgccccaaa	gagcaggtct	180
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&lt;210&gt; 1766

<211> 532  
 <212> DNA  
 <213> Pinus radiata

<400> 1766  
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 tcttctgggt caaggaaaat tacatcaciaa gggattctaa tccccgtggg gttgttccgg 180  
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<210> 1767  
 <211> 354  
 <212> DNA  
 <213> Pinus radiata

<400> 1767  
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 gatgcgctgc ggggaagagct gcaggctccg atggataaac tacctgcgtc ctgatctgaa 300  
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<210> 1768  
 <211> 430  
 <212> DNA  
 <213> Pinus radiata

<400> 1768  
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 gcacatttta 430

<210> 1769  
 <211> 407  
 <212> DNA  
 <213> Pinus radiata

<400> 1769  
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 gctttccaag cgcgggttct gttgctgtat ccaggggtcc tggatcatat gcggaagctg 180  
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 cggccaacgg caagatcgct aaagacgcca aggagaccgt gcaggagtgt gtctcggaat 360  
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<210> 1770  
 <211> 347  
 <212> DNA  
 <213> Pinus radiata

&lt;400&gt; 1770

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&lt;210&gt; 1771

&lt;211&gt; 469

&lt;212&gt; DNA

&lt;213&gt; Pinus radiata

&lt;400&gt; 1771

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agcagcaatg	gcggcccaga	ctatcatcgc	tgccctctatg	gcattctcctc	taacattatc	120
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&lt;210&gt; 1772

&lt;211&gt; 461

&lt;212&gt; DNA

&lt;213&gt; Pinus radiata

&lt;400&gt; 1772

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aagactgcga	tgagtccgtt	cattctcgcg	acacattagc	agcaaaacac	caaagggtcc	420
tgggccactgg	cattagggta	ggtctcaatg	ccctgtcatc	a		461

&lt;210&gt; 1773

&lt;211&gt; 332

&lt;212&gt; DNA

&lt;213&gt; Pinus radiata

&lt;400&gt; 1773

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&lt;210&gt; 1774

&lt;211&gt; 322

&lt;212&gt; DNA

&lt;213&gt; Pinus radiata

&lt;400&gt; 1774

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<210> 1775  
 <211> 428  
 <212> DNA  
 <213> Pinus radiata

<400> 1775						
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gcttctattg	ctgccaacac	atgggtgggt	agtgggtcat	cgcaacaaa	aaaacttcaa	360
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attgcaga						428

<210> 1776  
 <211> 512  
 <212> DNA  
 <213> Pinus radiata

<400> 1776						
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atcctgtcat	ggatcatcaa	cagcagcagt	ggatgatgca	gcaacaaaact	caacaacagt	240
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<210> 1777  
 <211> 498  
 <212> DNA  
 <213> Pinus radiata

<400> 1777						
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 <212> DNA  
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&lt;210&gt; 1779

&lt;211&gt; 470

&lt;212&gt; DNA

&lt;213&gt; Pinus radiata

&lt;400&gt; 1779

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&lt;210&gt; 1780

&lt;211&gt; 359

&lt;212&gt; DNA

&lt;213&gt; Pinus radiata

&lt;400&gt; 1780

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&lt;210&gt; 1781

&lt;211&gt; 360

&lt;212&gt; DNA

&lt;213&gt; Pinus radiata

&lt;400&gt; 1781

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&lt;210&gt; 1782

&lt;211&gt; 141

&lt;212&gt; DNA

&lt;213&gt; Pinus radiata

&lt;400&gt; 1782

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&lt;210&gt; 1783

&lt;211&gt; 370

&lt;212&gt; DNA

&lt;213&gt; Pinus radiata

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 <212> DNA  
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 <211> 441  
 <212> DNA  
 <213> Pinus radiata

<400> 1785  
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<210> 1786  
 <211> 435  
 <212> DNA  
 <213> Pinus radiata

<400> 1786  
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<210> 1787  
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 <212> DNA  
 <213> Pinus radiata

<400> 1787  
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&lt;210&gt; 1788

&lt;211&gt; 359

&lt;212&gt; DNA

&lt;213&gt; Pinus radiata

&lt;400&gt; 1788

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&lt;210&gt; 1789

&lt;211&gt; 350

&lt;212&gt; DNA

&lt;213&gt; Pinus radiata

&lt;400&gt; 1789

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&lt;210&gt; 1790

&lt;211&gt; 337

&lt;212&gt; DNA

&lt;213&gt; Pinus radiata

&lt;400&gt; 1790

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&lt;210&gt; 1791

&lt;211&gt; 315

&lt;212&gt; DNA

&lt;213&gt; Pinus radiata

&lt;400&gt; 1791

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&lt;210&gt; 1792

&lt;211&gt; 376

&lt;212&gt; DNA

&lt;213&gt; Pinus radiata

&lt;400&gt; 1792

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&lt;210&gt; 1793

&lt;211&gt; 407

&lt;212&gt; DNA

&lt;213&gt; Pinus radiata

&lt;400&gt; 1793

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&lt;210&gt; 1794

&lt;211&gt; 532

&lt;212&gt; DNA

&lt;213&gt; Pinus radiata

&lt;400&gt; 1794

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&lt;210&gt; 1795

&lt;211&gt; 502

&lt;212&gt; DNA

&lt;213&gt; Pinus radiata

&lt;400&gt; 1795

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&lt;210&gt; 1796

&lt;211&gt; 476

&lt;212&gt; DNA

&lt;213&gt; Pinus radiata



&lt;400&gt; 1796

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&lt;210&gt; 1797

&lt;211&gt; 509

&lt;212&gt; DNA

&lt;213&gt; Pinus radiata

&lt;400&gt; 1797

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&lt;210&gt; 1798

&lt;211&gt; 247

&lt;212&gt; DNA

&lt;213&gt; Pinus radiata

&lt;400&gt; 1798

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cagtga						247

&lt;210&gt; 1799

&lt;211&gt; 147

&lt;212&gt; DNA

&lt;213&gt; Pinus radiata

&lt;400&gt; 1799

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&lt;210&gt; 1800

&lt;211&gt; 361

&lt;212&gt; DNA

&lt;213&gt; Pinus radiata

&lt;400&gt; 1800

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 <212> DNA  
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 <213> Pinus radiata

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 <212> DNA  
 <213> Pinus radiata

<400> 1803  
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 <213> Pinus radiata

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 aatgttacag ggatctgatt atgaaggagg cccaagcctc atctgcaatg gccgccgttg 300  
 agaagtcatt tgccgcgggt tctccgatgg aggaggaggc ccctcttttc aagccagatg 360  
 ttttcgtcga acaaagccgt gcaccgatct cccagccgt agtccaagcc tcgtcagttc 420  
 acttggctga tataggttca tcttcttctc cacaacctcc tgccgaaact cctaaccggt 480  
 gcttctcctg caggaaacga gtcggtctga ccggttcaa atgtcgggtgc gga 533

<210> 1805  
 <211> 549

&lt;212&gt; DNA

&lt;213&gt; Pinus radiata

&lt;400&gt; 1805

gagtgaggaa	gctgtagatg	aaaagcgtgt	aaatctgcag	caagcagaag	gtccggagga	60
gcccaggggt	gtaactgcga	gcacattaga	atccccaaaa	agtacagaac	aggagaatag	120
tcttgagggt	gaggaagctg	gtgacaaaaa	gctccaggca	catgtgaatg	aaacgtcttt	180
gaatgcagat	caagaaaatt	ccatcaagga	gcttcacaac	aagtatcctc	gttactcgga	240
agaacttttg	acgaatatgc	tggctgatca	ggatggcgat	ttgaaagagc	tagaagcact	300
cttaaaaaaca	ttacaacgcc	aagagattag	agctgctaata	cgaaaaatgt	caggtccatc	360
atcttcaaag	gcaacagata	acacagatgt	ttccacggaa	tcaccaccct	caaagctaca	420
gaatgcctct	aagggcaaaa	ccagaggaaa	gagcgccaag	aagagagaaa	gggatacaac	480
tttatccgta	ggtagagtgc	acaaaacgcg	tcgaaaaaact	gcttccgacg	atgtgaaggc	540
cgctttctaa						549

&lt;210&gt; 1806

&lt;211&gt; 397

&lt;212&gt; DNA

&lt;213&gt; Pinus radiata

&lt;400&gt; 1806

gttttgggct	ctcatttggg	agttacattc	aaccaagctc	atcacatggc	gtccgagaag	60
gaagctgctc	ttgctgccac	accaccagaa	gatgataaac	ctacaatatt	tgacaaaaata	120
ctgcagaagg	agattcccag	tacagtgggt	tacgaggatg	agaaggtact	tgcatcagg	180
gatatcgcac	cccaagcacc	tactcacatc	attatcatcc	ccaaagtaag	ggatggcctg	240
actggcctat	ctaaggcaga	agagaggcat	gaggatattc	taggtcacct	gctatacact	300
gcaaaagtta	ttgcaaagca	ggaagggtta	tctgatggct	tcagaattgt	cattaacgat	360
ggtcctactg	gatgccaatc	tgtgtaccat	ttacata			397

&lt;210&gt; 1807

&lt;211&gt; 242

&lt;212&gt; DNA

&lt;213&gt; Pinus radiata

&lt;400&gt; 1807

caagatgggc	agatcttctt	gctgctcaaa	agaagggctc	aaccgtgggg	cctggaccaa	60
aagggaggat	atgattctct	ccgaatacat	tcgaattcat	ggcgatggcg	gatggagaaa	120
tatgcccata	agagcaggtc	ttaaacgggtg	tggaaagagc	tgagattac	gatggctgaa	180
ctatcttcgc	cccagacatta	aacgtggaaa	catttcccct	gatgaggagg	aactcataat	240
tc						242

&lt;210&gt; 1808

&lt;211&gt; 364

&lt;212&gt; DNA

&lt;213&gt; Pinus radiata

&lt;400&gt; 1808

caagagtaaa	cccgaaggaa	tagaagggga	aggaggcatc	ggcagcgttg	ttcctcctcc	60
tctcctctcc	tgcatctctc	aaactcaaat	acctctcctc	tcacaatcat	ggaaggcgga	120
gtcgtctttg	aatctgtgca	aaacccactg	gatcgccctga	acactggaaa	tatggaccat	180
ggttgtgccc	attacaggag	acgatgtcgg	attcggggccc	cttgttgcaa	tgagatctat	240
gattntaggc	actgtcacaa	tgaagccatg	agccatctaa	aggaccctt	gctgcgccat	300
gagctcccaa	gatacaaagt	tgaacggggt	atttgttctc	tctgtgacac	tgagcaaaat	360
gtca						364

&lt;210&gt; 1809

&lt;211&gt; 265

&lt;212&gt; DNA

&lt;213&gt; Pinus radiata

&lt;400&gt; 1809

cttaagtttc	agatgcctgg	taattcttct	tttccaactg	gaaacgctgc	cccatcaact	60
aaaaatcttt	actattcatt	tgacttggga	gttgtacatt	tcttgtatat	gtccactgaa	120
actaattttt	tagatggaag	tgatcaatat	gctttcatag	agcaagattt	gaaaaagggt	180
gatagaaaca	agactccatt	tgtagtattt	caaggtcacc	gtcccatgta	tacgactaac	240
tatgaactaa	aagatgcgcc	tctaa				265

<210> 1810  
 <211> 346  
 <212> DNA  
 <213> Pinus radiata

<400> 1810						
cttgaatcga	tcttgccctgc	ttgtgccgga	gcgcgcacag	tgtgtggttt	gttctcgttt	60
ttcatcttaa	agcggcggtt	gcaggaattg	atttgttgag	gggacgagat	gtgtgcagag	120
gtaagtcaga	gtgccatggc	cgtgcacact	atgcagatgg	cgagaatgga	aatgaagcgt	180
gaaataggag	tctgtgagca	ggaagcttcg	tcggccgtga	aggaaacgca	tttcagaggc	240
gtgaggaaaa	ggccgtgggg	gagattcgca	gcggaaatta	gagatccctt	gaagaaaacc	300
agagtctggc	taggcacttt	tgacactgcc	gaagaagctg	ccgagc		346

<210> 1811  
 <211> 353  
 <212> DNA  
 <213> Pinus radiata

<400> 1811						
cgaaactcga	atcgatatgc	tttgtggccg	gttcaaatat	ttgagctggc	ttagcttctc	60
tggttcagaa	atggcggact	aaagtaatag	tgtgccccga	ggctcgggtg	tcgaatctcg	120
ttggcgtgaa	aggtcaaat	tttctctcga	gtttcattga	ttctgaaaaa	ctggcatagc	180
tatggcgatg	agcaatggga	gatttgtgtg	agatttggat	aggattaagg	ggccgtggag	240
ccccgaggag	gacgcgtcgc	tgacagaggc	tgttcagaaa	tacgggccga	ggaactggac	300
cctgataagt	aaaggaaatcc	cggggcgatc	cgggaaatcg	tgcnagcttc	ggg	353

<210> 1812  
 <211> 185  
 <212> DNA  
 <213> Pinus radiata

<400> 1812						
tcttgctgcc	acaccaccag	aagatgataa	acctacaata	tttgacaaaa	tactgcagaa	60
ggagattccc	agtacagtgg	tttacgagga	tgagaaggta	cttgcatcca	gggatatcgc	120
acccaacac	ctactcacat	cattatcatc	cccaaagtaa	gggatggctt	gactggccta	180
tctaa						185

<210> 1813  
 <211> 337  
 <212> DNA  
 <213> Pinus radiata

<400> 1813						
caataaatgg	ccgaatgaat	taatcaacga	tgaaatgaat	taatgaataa	gctattggat	60
ctaggaaggg	ttttgaggct	gaaagttttg	ggctctcatt	tgggagttac	attcaaccaa	120
gctcatcata	tggcgtccga	gaaggaagct	gctcttgctg	ccacaccacc	agaagatgat	180
aaacctacaa	tatttgacaa	aatactgcag	aaggagattc	ccagtacagt	ggtttacgag	240
gatgagaagg	tacttgcatc	cagggatatc	gcacccaac	acctactcac	atcattatca	300
tccccaaagt	aagggatggc	ttgactggcc	tatctaa			337

<210> 1814  
 <211> 340  
 <212> DNA  
 <213> Pinus radiata

<400> 1814  
 gttcaaggga gacgggatat tcagagtcgg atcgccgcca tggccgtaga caccatacag 60  
 atggcgagag tgggtgtaaa aatgaagatc ggaggaggcg gctgcgagga agaggcgctc 120  
 tccgctgtga aggaaacgca ttccagagga gtgaggaaaa ggccgtgggg gagattcgct 180  
 gccgagatca gagatccctt gaagaaaacc agagtctggc tgggcacttt tgacactgca 240  
 gaggaggccg cccgagccta cgataacgct gccagaaatt ccgcgggggc aaggcgaaaa 300  
 ctaattttct tctgtctccc cacaatgaca ttagcaccaa 340

<210> 1815  
 <211> 433  
 <212> DNA  
 <213> Pinus radiata

<400> 1815  
 ccgctatcct ttccattaca tcccacgtta ggtcacggtt tccaaccctt gcacggccat 60  
 tcttctgtta agatggtgag atctccctgc tgcgacaagg ttcataccaa taacaaaggc 120  
 gcctggacca aagaagaaga cgagcgtctc atagcacaca ttgaagccca cggcgagggc 180  
 tcatggcggtt ctcttcccaa ggccgcaggg ctgctgcgat gtgggaagag ctgcagggtg 240  
 cgatggataa actacctgcg tccctgatctg aaacgcggaa gcttttcaga agaagaagac 300  
 gatctcatca tcaaaactcca ctccctcttc ggcaacaagt ggtcgcttat tgcagggaga 360  
 ttgccagggc gaacggacaa ccgaaaataa aaaattactg gaacacgcac atgaaaagga 420  
 aattggtgag cag 433

<210> 1816  
 <211> 225  
 <212> DNA  
 <213> Pinus radiata

<400> 1816  
 atcacagtcg gcctctgatc aaagaagaag ccgaatcaag gtgataattc tgcaaattct 60  
 gcagatgtag aaactcttct tctcagggtt gatgaaacag cttctgctga tctgacagtg 120  
 ttcccagggtt ttgttacctt ttatgtacca tacgggttcc ccatatggca cactttttaga 180  
 cccacaataa ctcaaacttc caatgtttat aagccaacag ctgta 225

<210> 1817  
 <211> 337  
 <212> DNA  
 <213> Pinus radiata

<400> 1817  
 gttgctgctg ctctctgttc tgcttctggt actgctggtg ctgctgtctt gccagtgaac 60  
 ggtgctgctg ggtcagatc tagtggtgat tccgagcatt cggatataga ggcgtctttt 120  
 aaagaggccg aatgcagtca ggccattggt gaaaggaggc ctccgaaacg gggcaggaag 180  
 cctgccaatg gtagagaaga acctctgaat catgtagaag ctgaaaggca gaggcgagag 240  
 aagttgaacc agaggtttta cgcactccgc gctgtggttc ccaatgtgtc caagatggat 300  
 aaggcctctc tggtgggtga tgccatttct tacatta 337

<210> 1818  
 <211> 390  
 <212> DNA  
 <213> Pinus radiata

<400> 1818  
 gtttgttcga acgatgaaaa ccagctaaaa caaagcgagc ggattggcag gattcgagca 60  
 gtggtccttg gggcgaggtt gatagaagaa gaagaaacct accatataca catacatata 120  
 ttatatacat agacacatgg gggctccgaa gcagaaatgg acttccgaag aggagggagc 180  
 tctcaaagca ggtgttgaga agtatggcac tggcaagtgg cggaccattc agaaggaccc 240  
 tgagtttgga cactgcctcg ccgctcggtc caatgtggat ttgaaggata agtggcgcaa 300  
 tatgagtgtg agtgctagtg gccaaaggtc aagggataag gttaaagact caagagtaaa 360  
 agctattgcc tctctgcctt attcatcaag 390

<210> 1819  
 <211> 367  
 <212> DNA  
 <213> Pinus radiata

<400> 1819  
 attcaaaatg ggaaagaagt tggagctgaa acgcatccaa aaccctaata gttcacgtga 60  
 ttcccttctcc aaatgcaaga ggggactgct aaagaaatcg gtcaagctct ttgttctctg 120  
 tgatgctgaa gtttccctca tcattttatc tgaaaccgcc aagatttacg agtttgcaag 180  
 caacaagtcg tgactagctc ttgtgaattc ttctgatcaa gttagagatc catatactga 240  
 tatataaaag catactttca cattgcaatt ggagcagatc tagatgcaga agtgcaacct 300  
 tattatacct aaaggccatc agctgcaaat caagacccat tttctatctt ttgagatcgt 360  
 gatacag 367

<210> 1820  
 <211> 487  
 <212> DNA  
 <213> Pinus radiata

<400> 1820  
 acgatcttca ccctcggtgc gctctctgct tatcccgatt cccagccaac tgctattata 60  
 ttccggagtac tgtacttcca gaactggtat cttcaagcac caagaccatt ttctgagctg 120  
 ttaagatatac tatgagtgat atggatcggt catcatcaga agattcagtg gatttctcaag 180  
 gtgatgtgaa tgcaaaactac aagatgggtt tctcggaaga tgaaaaggat ctcataagca 240  
 ggctgtacaa tctactgggc cagaggtggg ctttgattgc tgggcgaatt cccggcagaa 300  
 ctgcagagga aatagagaaa tattgtagca ggcgatatat tagtgagtac taggtcacat 360  
 gggtttctaa tagtcaatga agaagaaggg tagaagcagc cttgcctatc taactgattt 420  
 aagtttggga tatatatatc gactttgagt gatggccata tcttctgggg tttataagga 480  
 agtatgt 487

<210> 1821  
 <211> 319  
 <212> DNA  
 <213> Pinus radiata

<400> 1821  
 tttaagcatt tcattgagtc ttaggtcacg gtttccaatc ctggcaggtc tcattattct 60  
 gtctctctgg caagatgggg agaactccct gctgtgaaaa aggtcataca aacaaaggcg 120  
 cgtggaccaaa agaagaggac gatcgctca tcgctcacat tcgagccac ggcgaaggcc 180  
 gctggcggtc gcttcccaag gccgcagggc tgatgcgatg cgggaagagt tgcaggctcc 240  
 gatggataaa ctacttgctg ccagtcctcaa gcggtggaac ttctcagaag aagaagatga 300  
 gttcatcatc aaactccac 319

<210> 1822  
 <211> 320  
 <212> DNA  
 <213> Pinus radiata

<400> 1822  
 gcaaagagtt gcagattgctg ttggctgaac tatcttcgtc ccgatattaa acgtggtaac 60  
 atttctcccg aggaagaaga gctcattatt cggttgcac gccttcttgg aaatcgggtat 120  
 gtagagaatc gggggacatg atttattcat gcgccagaat ttcacgattc ctcatcgaat 180  
 tagtcatgca atgtttgtgc aggtgggtctc tgatagcagg acgactgcct ggtcgaacag 240  
 acaacgaaat caagaattac tggaacactc atatgagcaa gaagccatgg ctgtcaatgg 300  
 acgaatctca gtccaatact 320

<210> 1823  
 <211> 338  
 <212> DNA  
 <213> Pinus radiata

<400> 1823  
gtcagagctcc ttgctgcgag aaaacccata caaacaagg cgcctggagt aaagatgaag 60  
atgaagcact cgttgcatat attcaagccc atggagaagg cagttggcgt tcccttccca 120  
aggccgctgg gttgcagcgg tgtggcaaaa gctgcaggct tagatggata aattatctcc 180  
gtcctgacct caaacggggc aatttcagcc cagaagaaga tgagatcatt atcaaacttc 240  
attctatgtt gggtacaag tggctcttga tcgcaagcaa attgccaggg cgaacagata 300  
atgagataaa gaattactgg aacactcaca ttaagaga 338

<210> 1824

<211> 332

<212> DNA

<213> Pinus radiata

<400> 1824  
gccgaggtga ggaggcatta cgagcttctt gttgaggatg tgactgtgat tgagtctggc 60  
cgggttgctt tgctgctta ttctgaaaaa tcgtatacac cgcccgatt gatgtcagat 120  
cagttgggag atctcacaaa acagcaggcg gtttctgtga aggtccctc ggccaaggca 180  
tccgaacagg agcgcaaaaa gggcgtgccc tggactgaag aagagcacag actcttcttg 240  
atgggattga ataaatatgg caaagggtgat tggagaagca tatcaagaaa ctttgtggtc 300  
tcacggacac ctactcaagt tgcaagccac gc 332

<210> 1825

<211> 301

<212> DNA

<213> Pinus radiata

<400> 1825  
accgtcgaga gagcttcata tctaaccaat aataacacct gtatggcttc atagcttcac 60  
agcaacaggg caccatgggc cgagctcctt gctgggataa aagaaaggcg 120  
cctggactct agacgaagat aaaataactcg tcgattacat taccaaacat ggccatggca 180  
actggcgcgc actgcccagg caagcagggc tcttgcgatg tggaaagagt tgtcgctgc 240  
ggtggacgaa ctacctgata cccgacatca aaagaggga ttttattcca gaagaggaat 300  
a 301

<210> 1826

<211> 498

<212> DNA

<213> Pinus radiata

<400> 1826  
tttgcattca attcttcctg tatcatctaa ttgctcagtc tagcaattac gcaatctcgg 60  
tccccagtc tgtctgacga agagggtta gcaactgctg cctctgtggg caatctgacc 120  
ttgctgctgc atgcatctca gcgacgattg gaaggcaagg tcgcaataat aacgggcgga 180  
gcatctggca taggagaagg catcgttcgg ctcttcacaa agcacggagc cagagtcata 240  
atcgagaca ttgcagatga aaccggcaaaa attctggccg aatccctttc gcctccggcc 300  
acttacgtgc gctgcatgtg gagcaaagag caagacgtca gcgctgcggg ggatttggcc 360  
atggagaagt acgcgcagct ggatatcatg tttacaacg caggaaatcg cgatacgggt 420  
aatgtttcaa ggggagtggc agagtacgag atggagcagt tcgaccgagt tatgagcgtc 480  
aacgtcagag gggatgatg 498

<210> 1827

<211> 551

<212> DNA

<213> Pinus radiata

<400> 1827  
cgtggctctt cccggcagac ctagtaagcc gactactgta aatttattct tttagggtta 60  
cagaagaaga aaatacaaga tgggcagatc tccttgctgc tcaaaagaag ggctcaaccg 120  
tggggcctgg accaaaaggg aggatatgat tctctccgaa tacattcgaa ttcattggcg 180  
tggcggatgg agaaatatgc ccaaaagagc aggtcttaaa cggtgtggaa agagctgcag 240  
attacgatgg ctgaactatc ttcgccccga cattaaacgt ggaaacattt cccctgatga 300

ggaggaactc	ataattcggc	tccatcgct	tcttggaat	cgatggtcgc	ttatagcagg	360
aagattacca	ggtcgaacag	acaacgaaat	caagaactac	tggaacactc	atatgagcaa	420
gaagctgctt	ccattgaacg	aatctgaacc	caagactttg	cctgtcccca	agaggaggtc	480
gcaatctcct	tctccctgc	aaaatcgagt	ctttaagcc	aaccctgtga	aaataacaac	540
ggtggtcagt	c					551

&lt;210&gt; 1828

&lt;211&gt; 256

&lt;212&gt; DNA

&lt;213&gt; Pinus radiata

&lt;400&gt; 1828

ctgaaattcg	gatgccgaaa	tcccatgaga	agatatggct	gggatcctat	aataccgccg	60
agcaagccgc	ccgtgcttac	gacgccgctg	tgtattgtct	gagaggaccc	gccgcaaac	120
tcaattttcc	agaaaccgtg	ccgggtattc	cgtctgcgtc	ttccctttcc	cggcagcaaa	180
ttcagcatgc	agccaccaga	tatgccttgg	gtgaaatccc	tttgatttcg	ccctctctgc	240
aaaatattga	ctcgag					256

&lt;210&gt; 1829

&lt;211&gt; 372

&lt;212&gt; DNA

&lt;213&gt; Pinus radiata

&lt;400&gt; 1829

gcagattctc	aacagaattg	ggaaagtgtt	gtgaatattg	aagatggctc	agtgccatga	60
aatcattgaa	agtcgttgca	gagacagcca	tggcgcatca	gatctgaagc	tgtttgccat	120
ggccgcggtt	ctggtgacga	gcaccggagg	agtatgtttg	ccggttctgt	ttgccagata	180
ttcccagggg	ctcaaatgtt	acggcactct	tctggtactg	gtgaaatgtt	tcgtgcccgg	240
agtgattctg	tccacaggat	ttgtccacgt	catgccggaa	gccttccgcg	ctctggaaaag	300
cgactgcctg	ccggatcatc	catggcacca	gttcccgttc	gccggactcg	tggccatggc	360
cggggcaatc	ct					372

&lt;210&gt; 1830

&lt;211&gt; 486

&lt;212&gt; DNA

&lt;213&gt; Pinus radiata

&lt;400&gt; 1830

agcgggtggt	gatttagccg	agggcgaaga	ggaggacgaa	gaagggtctc	gtaacaaacg	60
tggcgattga	tcctacctta	gcctgaaaat	gctgtcagga	ggctacgcaa	ccagatccga	120
cactactact	gtcaacaacg	gatccgctaa	tggcccaata	ggaagtgtct	ccccaagaat	180
taactcgata	caaaataata	atccaggagc	tgtcaggcct	ggctggggaa	ccatgccctt	240
tcacatgaat	ccttatcatc	cccaatcaat	gcctcttccg	cccccaatg	gtatgcaggg	300
tcagcttggt	tgcagtggat	gtagaactct	tcttggttat	ccgcaagggt	caccaaagt	360
ttgctgtgca	gtatgcaaca	cagtcactcc	agttccacct	cctgggacag	aaatggctca	420
gctaactctgt	ggacgttgct	gtacattgct	aatgtatggt	cgtggagcaa	ctagtgttca	480
gtgctc						486

&lt;210&gt; 1831

&lt;211&gt; 330

&lt;212&gt; DNA

&lt;213&gt; Pinus radiata

&lt;400&gt; 1831

gtttttccgc	aggaagtgtt	gatttgagta	ggaaatcctt	tggcctcctg	gagctttgat	60
ttgctcagga	aaccctagcc	cttcggttcc	tgaagctttg	cttttcgtag	gaaacccttt	120
ggcaccggta	ggcgatggct	cccagcaaca	acagaagaga	cgacaatgga	gcacgaggag	180
ttcacttcag	gggcgtcagg	aagagccct	ggggtcgata	cgcggcggag	attagggatc	240
catggaaaaa	agttcgtctt	tggctcggca	cctttgacac	ggccgaggaa	gccgccgggg	300
cttatgacac	tgccgctatc	tccttcagag				330



<210> 1832  
 <211> 413  
 <212> DNA  
 <213> Pinus radiata

<400> 1832  
 aaatctgact atcgggatag tgatgatgaa ggaggaggta ctgttcgaga aggaaaggat 60  
 ctgcaaact caaatctcat cgattatctt ggtcaaagta atcatacaga agaagcagaa 120  
 aatgagcatg atgcatcagt ggataccaaa gggcccctgg aatccagcaa tgaagtctggc 180  
 catcctacca cataccccga atcttcttca ttgtcagcgc aaggctctga gcctcgagtt 240  
 ttttctgtga attactgcca gagaaaattc tacagctcgc aggccttagg aggccatcag 300  
 aatgctcaca agcgagaacg caccttggca aagagggggc aaagaattgg ggcttttcaa 360  
 cacaggtaca taagcatggc atccctgcct ctccatggct ctacagaatc agc 413

<210> 1833  
 <211> 260  
 <212> DNA  
 <213> Pinus radiata

<400> 1833  
 gctatttgca gcatttccct ccatccgtac ccaaaagatg ctgacaaaca tttactagca 60  
 agacagactg gactgaccag aagccagggt tcaaattgggt ttataaatgc acgtgtccgc 120  
 ctttggaac ccatgggtgga agaaatgtat atggaggaac tttagagaggc cgaaacacag 180  
 aatcatgcag cagattcgaa ggtaacaaca gaaagtgggtc aaaacaatga agaaacgggtg 240  
 tcaaaggaag gagctgggaa 260

<210> 1834  
 <211> 338  
 <212> DNA  
 <213> Pinus radiata

<400> 1834  
 aattgaatcg gccatgggtt tgtatgaatt gttacatgta cagcagattc agcaaataca 60  
 gcagcagcag tttcaattgc aacaacaaca aatagcagca gcgggttcaa tccaccatat 120  
 gggtcgaaac cctctgggtc ccagagctca gcccatgaaa cttcatggca gcagcctatc 180  
 aaagccggct aagcttttaca gaggcgtgag gcagcgccac tggggtaaat gggttgcaga 240  
 gatcagggtta cccagaaaca gaaccagggt atggctgggg acttttgata ctgcagagga 300  
 agcggccatg gcttatgaca aggctgctta caggctga 338

<210> 1835  
 <211> 240  
 <212> DNA  
 <213> Pinus radiata

<400> 1835  
 gcttattgga atgcctgaca ctaactatgg aagcgaacag acaaagtctt gcaaaaaaca 60  
 gaaaagaata cgttccaagg attcaggaga agatgggtgaa gatagacaga gataacatcc 120  
 tttcattgtt actgagcccg gtgaacttgc aagagggaaa aagaatgggt tagactatct 180  
 ctttgatctt tatgaacagt gcgggaaatt tctgctggat gtgcaacata ttgcgaagga 240

<210> 1836  
 <211> 349  
 <212> DNA  
 <213> Pinus radiata

<400> 1836  
 gataaatcca gatgagggtt tagcagtcga ctttgcattc caactgcac acatgcccga 60  
 tgaaagtgtg tctacaaaga acctacgtga ccggcttcta aggatgggtga agtctctcaa 120  
 ccctaaagtg gtcacagttg tagaacaaga ggtaaacact aatactgcac ctttcttacc 180  
 ccggttcatg gaagcattaa actattactc atcagtgttt gagtctctag atgtacaaat 240  
 tccaagggat agtagagatc gtatgaatgt tgaaaaacag tgccttgccc gagacatagt 300

gaacataatt gctttgtgag ggggaagaaa ggggttgagag gtatgaagt 349

<210> 1837  
 <211> 457  
 <212> DNA  
 <213> Pinus radiata

<400> 1837  
 gaaaagtatg ttcaagtttt ttccattcaa acatatcctt gttggagggg ttcggaaccg 60  
 tctccggtcg tcttcaacca gtctgacccc aactcgcagt ctcttgact ctcaaagtat 120  
 aaatttttca agaattggcta attcgaatcg aggatgcttc atatgcggtt ctgaggatca 180  
 tcgaaaagcg gactgtccca caccgcgaca acttacctgt tatcagtgcg gtggagtggg 240  
 ccatcagtct cgggactgct cttcctccga gaagcgcaaa acctgctaca aatgtggtga 300  
 agagggccat atctctcgcg actgttccaa tgcgccaacc tctgagtatt ccggtggtaa 360  
 ttccggcacc gaatgttata aatgtggtaa attgggtcat atctctcgct cctgtccgac 420  
 aaatgagtca actgctgact atgctagggc tcctagc 457

<210> 1838  
 <211> 395  
 <212> DNA  
 <213> Pinus radiata

<400> 1838  
 ctgaaatatc gttaaattca ctcttttggg ctcagttact gcgtcgccaa tatggaaaat 60  
 ctccccaatc agcaacctga ccttgaaatt gctcaaacac acgaggatcc cgggtcccgc 120  
 caatttaagg gaattcgact gcgaaaatgg ggaagggtggg tatcggaat ccgataacc 180  
 aaatctcgag agaaaatatg gctgggctct tacacgactc ccgagcaggc tgcccggtct 240  
 tacgacgccg cagtgtattg tctgaaaggg cccaacgcca aattcaactt tccggaaacc 300  
 gtgcacgaca ttccgtctgt gacttctgtt tcccgtcagg aaattcagca cgctccctc 360  
 aaatatgcct tgggccagcc cctccgagt ttgca 395

<210> 1839  
 <211> 395  
 <212> DNA  
 <213> Pinus radiata

<400> 1839  
 gctaacacag cccttatata tcatcatggg aagcttcttg cacttcaaga ggcagataaa 60  
 ccttatgcac ttagagtcct tgaggatggg gatttgcaaa ctcttgggct aatggattat 120  
 gataataaat tagcacactc cttcactgca catccaaagg ttgaccctgt tacaggggag 180  
 atgtttacat ttggttacca acacaagcct cctattttaa cttaccgggt tggtacaaag 240  
 gagggaataa tgcttgatcc agttcctata acacttccca aacctgtcat gatgcatgac 300  
 tttgccataa ctgataacta tgcaatcttc atggatcttc ctctctattt ttctccaaag 360  
 gatatggtaa aagggtggact catcatgtct tatga 395

<210> 1840  
 <211> 468  
 <212> DNA  
 <213> Pinus radiata

<400> 1840  
 ctcatctcag tgattcactc actgaaatta ttgttagaat cactgttttg gcccagagc 60  
 ttctgcgtcg ccaaatatgg agatacgctt ccagcaggaa aacgaccagg acattgctcc 120  
 gccacacgaa gatcgcggtg cccgccaat taaaggagtc cgaccgcgta aatgggggat 180  
 atgggtatcg gaaatccgga tgccgagatc tcgacagaaa atatggctgg gctcgtacaa 240  
 aaagcccagag caggccgccc gcgcctacga cgccgcagtg tattgtctga gagggctcga 300  
 cgccaagttc aatttcccca attctgtgcc cgacattccg tctgcgtctt ctctttcccg 360  
 ccagcagatt caactcgctg ccgccaataa tgcgttggat cagtcctctt caagcccgcc 420  
 gtctctgaac aataataaag aggaaccgcg gtcaccgtcg cagtcgtc 468

<210> 1841

<211> 378  
 <212> DNA  
 <213> Pinus radiata

<400> 1841  
 aaacaatata gtcgacattg ttgcagcatc tagagctatt cgtgaaccac gtgtagtggt 60  
 acaaacaacc agtgaaattg acatccttga tgatggatat cgatggcgca agtatgggca 120  
 gaagggtggtg aaaggaaatc caaatccaag gagttactat aaatgcacaa atgctggatg 180  
 tccagtggagg aaacatgtgg aaagagcatc acatgatcca aaagcgggtga tcacaacata 240  
 tgaaggaaaag cataacccatg atgtgcctgc tgccagaaac agcagccatg ataatgctgc 300  
 aaaaggggaat ggggcagctc ctctagcaat gcagaataat gtcccagcgc ctatgaatgc 360  
 tataaccaga cctgttcc 378

<210> 1842  
 <211> 382  
 <212> DNA  
 <213> Pinus radiata

<400> 1842  
 ctcccacctc catttcactc tgccgagtc attactctcc ctatcgctga accacgtctt 60  
 tctcatcgac caacaatgac tcagcagaca acctcaccaa cagtttagtcc cgccgcactt 120  
 gctcttccca cttctgcctc atccacatct gcaaagtctg cagctgttcc agtaccagcc 180  
 caagccaacc ctgcgaaacg tctcgttctg gatctctccg cagaggagaa gcgagaggct 240  
 cgtgctcatc ggaacagaat cgcagctcag aactctcgtg acaaacgcaa acagcagttc 300  
 actagtctcg aacaacgagt catcgacctc gagaacgaga accgccaatt acgagacgct 360  
 ctgcgcactt cgcagccgaa cc 382

<210> 1843  
 <211> 314  
 <212> DNA  
 <213> Pinus radiata

<400> 1843  
 catagaaaga gctttatgtg tcttgaattt gaaccctctc ctctgttttaa agaatccgag 60  
 ctttgcaaac acgccttgag cttagactccg gaatacccca gcaacaatcc gacatggcta 120  
 aatcctcgca aaaccagaaac ccccgcaaca gacgcgaaaa ccgcttacgg aagtcacggc 180  
 agttcaaggg aatacgaatg agaaaatggg ggaaatgggt gtcggaaatt cgaatgccca 240  
 attccactgg gagaatttgg ctaggctctt atgacacgcc ggaaatgggt gcccgcgcct 300  
 acgattttgc ccgg 314

<210> 1844  
 <211> 384  
 <212> DNA  
 <213> Pinus radiata

<400> 1844  
 ccggttccta gttcgaatcc ttgccctaac gcagtcocgt gttttaagac tcaatcttta 60  
 gtgactcccc cgcaacatgg ttaagccctt gccaaaacag agcagcccga gcggatcgga 120  
 aaactgccaa ataaagtcgc ggcagttcaa aggaatccga ctgagaaaat gggggaaatg 180  
 ggtgtcgga attagaatgc cgaattccag ggccaaaatc tggctgggct cctacgactc 240  
 cccggaaaaa gctgcccgcg cctacgactt tgcgttgtac tgtctaagag ggtcgaaggc 300  
 cacattcaat tttcccgaact ccccgccgga aattccatgc gcctctgacc tgtcgccgcc 360  
 gcaaattcaa gccgcccgcg ccag 384

<210> 1845  
 <211> 171  
 <212> DNA  
 <213> Pinus radiata

<400> 1845  
 acatcccgtc ttcactttgt tgatcaacaa ttacgacaac agcagagctct tcagcagcta 60

ggaatgatac	agcagcatgc	ctggagacca	caaagagggc	ttccagagag	ggccgtttct	120
attctccggg	cttggctatt	tgagcatttc	cttcatccgt	accccaaaaa	t	171

<210> 1846  
 <211> 436  
 <212> DNA  
 <213> Pinus radiata

<400> 1846						
agattgatca	aacacaaata	ccgtaaaatc	gcagcgaaga	tccaaaattc	caccatgggg	60
actgtggcgg	aagatggcag	caaggggttac	acggccgtaa	atcccatcc	caaaaagggc	120
gtcgccctcg	ggctgggtgga	catgggtggag	aaactgggtg	ttgaaacttc	tgcggtgtat	180
agttcgaaga	agcctctgca	ttttcttttg	gggaacttcg	ctccagtctc	ggaaactgcc	240
cccaaatacgc	acctgcatgt	tggtgggcaa	cttcctagtt	gcttggatgg	agagttcgtg	300
cgcgttggtc	ccaatccgaa	attcgacccg	gtagctggct	atcactgggt	tgatggagat	360
ggaatgatcc	atggtctgag	aattaaagat	ggtaaagcca	catatgtgtc	acgttatgtg	420
aagacatcac	gcttga					436

<210> 1847  
 <211> 303  
 <212> DNA  
 <213> Pinus radiata

<400> 1847						
ggaggcgagc	cattctttgt	tccccgctcc	tccgatacctg	cggcgccgga	agacgatggc	60
tacatcctca	cattcatgca	caacgaggag	acctcgaagt	cggagcttct	tattttggac	120
gccagatctc	cgaccctgga	acccgtggca	acggtaaagc	tgccgtccag	agtcccatc	180
ggattccacg	gcacattcat	cacttctgaa	gagcttgcca	agcaggtgcc	gtgaagacgc	240
gctgtcttcc	gcccttcttg	ctttcttgat	tacctacaa	cacctgggtc	tgtactttct	300
tta						303

<210> 1848  
 <211> 551  
 <212> DNA  
 <213> Pinus radiata

<400> 1848						
gcgatttcga	gtgctgtaag	caggcaacga	cgccctgtttt	gcttttagagt	ttaacagaaa	60
agaagaatgt	gtggagggtgc	tatcatctcg	gactttataa	tacccctgc	gagccgaggc	120
cgccgggtga	ctgccaggga	tatatggccc	gattttgata	agttctctga	gtttattaat	180
ggagggtgctg	cggtggagtgc	ctttgatgtc	agcgttgatg	tcgatgacga	cgaggaggat	240
tccgacgatg	acgagttcct	cgattttgag	gagagctatc	agaacaagaa	gaagaagcag	300
caacagccga	tatccccac	caaggggttc	gagcttcctt	tagctcgggg	tcttgatgga	360
ccggcgccca	agagcgcggt	gagaaagagg	aagaatttgt	tcagagggat	caggcaacgt	420
ccatggggga	aatgggctgc	agagatcagg	gatcccagaa	aaggcgctag	ggtttggtctg	480
ggtaccttta	atacggcgga	ggaagctgct	cgggcttatg	atgcagctgc	acgaaagatc	540
agaggtaaga	a					551

<210> 1849  
 <211> 527  
 <212> DNA  
 <213> Pinus radiata

<400> 1849						
gaacagtcca	gcctcgttgc	accctcctca	gtcaccacaa	acagcactgc	agcgaaagga	60
caagggcctg	ctgatactga	gtctcaacca	gacctaaactg	ctgccgagaa	gccttcaatg	120
gagcccaaga	aaccgccaag	aaagaaaggt	cagaaacgaa	acagggagcc	cagatttgca	180
ttcatgacca	aaagtgatgt	ggatcatttg	gaagatggct	atagatggcg	caaatatggc	240
caaaaggctg	tcaaaaacag	ccctttcccc	aggagtact	atcgttgcac	aaatggaaaa	300
tgctcagtga	agaagagagt	ggagcggttcg	tcagaagatc	caggaattgt	gattacgaca	360
tatgaaggac	agcattctca	tccaagcccc	gccatattgc	gtgggtcagc	agaatcccaa	420

tcccactttt	cagatcaaag	attgaattct	cccttcactc	aaacgccatt	gatcagattc	480
cctccccacc	caatgatgat	gagtagtact	aaccaggctc	cagctgc		527

<210> 1850  
 <211> 226  
 <212> DNA  
 <213> Pinus radiata

<400> 1850						
gagagaaggt	ggaagtacag	caatagaaa	tgacttgaaa	agtgaaaatc	ttgaagaaaa	60
agaagcgaag	gcaagtgaag	atgaagataa	gatgctgaaa	aaaccagaca	aattggtacc	120
ttgtcctcgc	tgtgacagtt	tagataccaa	attctgctat	tacaataatt	acaatgtgaa	180
ccagcctagg	catttctgta	aaaattgcc	gagatattgg	actgct		226

<210> 1851  
 <211> 236  
 <212> DNA  
 <213> Pinus radiata

<400> 1851						
atggccggag	accacgcttg	ccccgtctgc	caagcgactt	ttactcgccc	gcaacatgtc	60
gcacgacaca	tgcgctccca	caccggcgac	cgcccgatca	agtgtcccat	ctgcaccgac	120
tcgtttggcc	gcagcgacct	cctgaagcga	catgagaaga	agatgcactc	aaacggggcag	180
agcgcagcga	gcacgcccac	tgggcccagg	cagaacaaat	ttgatagcca	gtttac	236

<210> 1852  
 <211> 455  
 <212> DNA  
 <213> Pinus radiata

<400> 1852						
ccacaacgaa	taaatgcaaa	tgctgttctg	gatagctgaa	cccaccaact	catcagcata	60
aattttctcca	gcagaaatcc	agcctccac	tgcgcgcat	aaattttctc	aacggaaatc	120
cagccggccg	ctaaattctc	tgcactgaca	aaagcccaca	ggctaacaga	ttccgacatg	180
gatcgcccca	ttccctggcc	atctgcatac	acagaaatct	agactttgaa	aatctttcta	240
aattctgtat	ggagccctga	actgtagggt	cagggttcga	ttaccgctat	ggatgaggcc	300
gcgcctgcca	aggctcctct	cccctgtgac	tactgtggcg	aagcgaatgc	agttctctac	360
tgccgagctg	actccgcca	gctctgcctg	ccatgtgacc	accacgtcca	ttctgccaat	420
gccctgtcca	agaagcatgt	ccgatcccag	ctctg			455

<210> 1853  
 <211> 324  
 <212> DNA  
 <213> Pinus radiata

<400> 1853						
cttgaatgtt	gttgcattgt	agggatcaga	aagattggaa	aggccagaaa	cttacaacaa	60
gtggcaggga	cggactcagc	gtgctggatt	tgtacagctt	cctctggatc	gtagtattct	120
ctctaaatcc	aggataagg	taaaaacat	ttctatcata	aggatttttg	agtggacgaa	180
gatggtaatt	ggatgctatt	gggctggaag	ggaagaacta	ttcatgctct	gtctacgtgg	240
agaccttcga	catgattttg	cgatggagaa	tttttctctc	tgcaaagagt	aaggcatgat	300
acatatttgt	gattctgcca	aggc				324

<210> 1854  
 <211> 316  
 <212> DNA  
 <213> Pinus radiata

<400> 1854						
acgggctctc	caacaattag	gcatgattca	gcagcatgct	tggaggccac	agagaggact	60
tcccagcga	tctgtttctg	tcttacgggc	ttggctattt	gaacattttc	ttcatccgta	120

tccaaaagat	gcagacaaac	atatgctcgc	gagacagact	gggcttacca	gaaatcaggt	180
ctcaaattgg	tttataaatg	cacgtgtacg	cctctggaag	cctatgggtg	aagagatgta	240
tgtggaggaa	acaaaggagg	cagaagtaga	ccatggatca	aatgataaaa	caggtaagga	300
gagtggcgag	aaaaaa					316

<210> 1855  
 <211> 393  
 <212> DNA  
 <213> Pinus radiata

<400> 1855						
cggaataatca	cccccttgcg	ttgcgcacca	tcgccccgac	gtaccgaagt	agcggacacg	60
gttccgtaat	attgtacagg	cgcgcgccca	ccccacagc	gacgacagac	acacattctt	120
taacgatcca	tctccttctt	gacgaaacct	ccacccccaa	cgattgacga	tgcccaaggc	180
ggacagccag	agcggatccc	gagattctac	ggtcggcccc	gctcaaggta	cgctgaagcg	240
gaaccaggcg	tgccaccaat	gtaggaagcg	gaaactgaaa	tgcgacgcca	aaagaccttg	300
ctcgacttgt	gtgaggtcac	acaaccacgc	catcacccac	gctgggtccag	acgctgtttt	360
gccgcccttc	ccagaatgta	cctttgacga	agt			393

<210> 1856  
 <211> 359  
 <212> DNA  
 <213> Pinus radiata

<400> 1856						
ggaaagtcca	acatagaaat	cttctgtgca	ttcatagaat	aaatattcta	caggctgcac	60
tgtaatttag	gcgagaaatc	gaataaaaata	tacatttgtt	tgtttacgat	ggagttggca	120
gatgagcatt	ccatcctccg	ctataagaaa	ccaagctct	ccaagaatgt	cgtttccgag	180
cgccgccgaa	ggcagaaaat	gaacaagctt	ctctacactc	tgagggctct	ggttcccaat	240
atttccaaga	tggacaaggc	atcgatttta	gcggacgcca	tcgaatatgt	ggagaagctg	300
aagcaacagg	tggagagagc	tgagtctgac	gttcaatcca	ccaacgtctc	ggctctatc	359

<210> 1857  
 <211> 459  
 <212> DNA  
 <213> Pinus radiata

<400> 1857						
ggaaggcaat	gagagtgate	tcctcaaggg	aatgaagaag	gcaaggcgctg	agagaggatc	60
aacagcaaa	gaacggatta	gtaaaatgcc	tcctgtgtct	gctggaaaac	ggagttctat	120
ctacagaggc	gtcacaaggc	atagatggac	aggacgatat	gaagctcatc	tttgggacaa	180
aagtacttgg	aaccagaacc	aaaataaaaa	gggcaagcaa	gtgtacctag	gtgcctatga	240
tgaggaggag	gctgcagcca	gagcttatga	ccttgccgct	ctgaaatatt	ggggctcctgg	300
aactctcatt	aattttcctg	ttagtgacta	tgctagagat	attgaagaga	tgacagagcat	360
ttcaagggaa	gattttcctg	cttctctcag	acggaaaagt	agtgggtttt	caaggggaat	420
gtcaaaaatac	ccgtggactg	gccaaagcaat	cacaaactg			459

<210> 1858  
 <211> 368  
 <212> DNA  
 <213> Pinus radiata

<400> 1858						
aaaaaggcgt	cagaatgggg	tgagtctgta	gtaagtacaa	gcgaaaacag	taatgacttg	60
gattctccta	cttattctga	aacctcttcc	cctgctcaag	gatctgatcc	tcgggttttc	120
ccctgttaatt	tctgtcaaag	naaattctac	agttctcaag	cattaggagg	tcatcaaaat	180
gcccataagc	gtgagagaac	tttggctaga	agggcacaga	gaatggggtc	ttttgcacaa	240
agatattcaa	gcatggcatc	acttcactc	cacggttcct	cggaaaacaag	ttggacgccc	300
agtcggtttt	tagggataaa	agcacattct	ttgattcaca	aacctttccc	tgaaggatgat	360
aacctgcc						368

<210> 1859  
 <211> 497  
 <212> DNA  
 <213> Pinus radiata

<400> 1859  
 ggcaagaccg tctggaagag gatgttacgg gaagagagca aaagcgttac cgtgtctgcg 60  
 acccgagct ttcggagcga accgtggttag taatgggggc agaccgcac gaatccggag 120  
 tccgtctcgt gcacacgctg atggcctgcg cagaagcggg gcagcgcggg aatttggcca 180  
 tcgcgcggga aatggtgaaa gaagtgagaa ttctggcttc agcacagggc ggggcaatga 240  
 gcaaggctcg cacatatttt gccgaggctc ttgcccggcg aatctatggg tttctccctc 300  
 aggacacctt gcggttcaac cagaacgacc ccttgccga ttttctgcaa tttcatttct 360  
 accaaacctg cccctatctc aaattcgcgc acttcatagc caaccaggcc attctggatg 420  
 ccttctccgg gcaccaacag gttcatgtca tagatttcaa tctgaaacag gggatccaat 480  
 ggccggcctt gatacag 497

<210> 1860  
 <211> 254  
 <212> DNA  
 <213> Pinus radiata

<400> 1860  
 gagtaggagg cggcgggcga ggcaagggaa gcccgtagc aggcgtcagg atgagaaaat 60  
 ggggaaaaatg ggtttctgaa gtgaggaggc cgaacaagcg gtctcgcata tggctcggct 120  
 cctattccac tcccagggcc gctgccaggg cctatgatac tgccgttttc tacctcagag 180  
 gaccctccgc gactctcaat ttccccgagg aagcacgtaa ggagcagcag agcgacctca 240  
 ggctttcgca gctc 254

<210> 1861  
 <211> 515  
 <212> DNA  
 <213> Pinus radiata

<400> 1861  
 catcttctcc ttacaaaagt agtccccctc ttgactccag gcggtcttcc cagtccataa 60  
 cgatacggat tacacccacg caccatgtgt cttccacctc atcgtattct tctccctccc 120  
 ctgacacacc atcacagtct gccgtgtgac gcccgacatc tacccgagac gattcttccg 180  
 tcatggaacc tccacgtaag cgagccaggg ctgatcttaa cgctgaacag cgaagagagg 240  
 ccagggccca ccgtaatcga attgccgctc aaaactctcg cgataaacgc aaggcgcaat 300  
 tcaattacat ggagcagcgc gtggcacaac tggaggaaga gaaccaacga ctacgagcag 360  
 gcatgggect ctctcaattc acgccagccg acaacgacaa gttcgtcagc ctcgagagag 420  
 aatcagtaga ggcccgcgag aacagagagc tcaaggagag gatcaagagt ctagagagcg 480  
 ggtggtcggc cgtcatcaaa gcgttgccagg cctca 515

<210> 1862  
 <211> 532  
 <212> DNA  
 <213> Pinus radiata

<400> 1862  
 agtttgctgc tctacacctg tggttgcaag cgtttggagc ttcaagaggc aaggtttggg 60  
 ctgtgattaa ttcattggcg cggcggcgac gactacgttg ggttggtcga aggtggattt 120  
 gatacgggctc atgcggctgc gagagcttac gacagggcag ctatcaagtt tcgaggagtt 180  
 gaagctgata taaattttac tctcaccgac tatcaagaag atttagacca gacgagcaag 240  
 ctctctaaag aagagtttgt gcataattctc cgctcgtaaa gtactggttt ctctcgtgga 300  
 agttccaagt atagaggcgt taccctgcac aagtgtgggc gatgggaagc cagaatgggt 360  
 caattcctag gaaaaaagta tatatatattg ggattatttg acagtgaaga ggaggctgca 420  
 agggcatatg ataaggctgc tatcagggtgc aatggaaagg aggcagtaac gaactttgat 480  
 cctagcttat atgaaaaaga aattcttgaa gaaagaagag agagtcagac tt 532

<210> 1863

<211> 497  
 <212> DNA  
 <213> Pinus radiata

<400> 1863  
 ggcacgagcn cttctgattt tttggccgag ggttcgttgc agaaaggcca agggcaagta 60  
 ggaggcgata gacctacttg aaaatggagg tgtctgcgaa gaagcgaaag gccgaagaag 120  
 cgaatggcgt ggtcgatata gccgtggaag atgctcggaa aatgttggaa cccttcaccc 180  
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 aaggggtcgt cattatggac aagaacaccg gtaagagtaa gggttacgga ttcgttactt 420  
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<210> 1864  
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 <212> DNA  
 <213> Pinus radiata

<400> 1864  
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 gcagttttac ccgaagccca tcgggcaact ccacggccac ggacgggctg gtgcgcctgc 240  
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 <212> DNA  
 <213> Pinus radiata

<400> 1865  
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 gacttatcaa acggttctta atgtagcaga gggagaaacg aggttgcaca ttgttgattt 180  
 cggaattctg tatggtttcc aatggccttc tctgattcaa tgtctggcaa atcgtcctgg 240  
 tggctcctccc atgcttcgca taactggaat cgagtttccc caacctggat ttagaccagc 300  
 agagagaatt gaagagactg ggcgcagact ggaagactat gcaaaatctt tcggtgtgcc 360  
 ctttgaatac caggctattg caacaaagtg ggaga 395

<210> 1866  
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 <212> DNA  
 <213> Pinus radiata

<400> 1866  
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 attgcagacg gtcgtaatgc agataatttg attgcagggc tgagacaagt tgtaaatata 180  
 tatggggatc cattgcatag gttagctgca tatatggtag aaggctcttg agcaagggtg 240  
 catttctcag gaggacatat ttacaaaacc ctaaaatgca aggagcctac cagttccgaa 300  
 ctcttttctt acatgcatat tctatatgaa gtttgtccct 340

<210> 1867  
 <211> 398  
 <212> DNA  
 <213> Pinus radiata

<400> 1867



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gaatgataca	tgccgtgacg	ctgagacacg	ggaaggctag	ttacagttgc	cggttcacgg	360
agaccgaaag	gctcgttagc	gaggagcggg	cggggcgg			398

&lt;210&gt; 1868

&lt;211&gt; 200

&lt;212&gt; DNA

&lt;213&gt; Pinus radiata

&lt;400&gt; 1868

aattgcaaata	cttgacagtt	caatcggtta	atcaatgaaa	agcatctcag	atctatcacc	60
catgtgctaa	ttctatgagt	ggttttttgt	tgggttagga	gcgcaactgca	ttctacttcg	120
gaaaaaata	tggatgcaga	gcacttttct	gtaggtttct	ttaggtggga	taagagacca	180
gcaccagttg	tagcggcagc					200

&lt;210&gt; 1869

&lt;211&gt; 286

&lt;212&gt; DNA

&lt;213&gt; Pinus radiata

&lt;400&gt; 1869

ggatagtgc	gagcggctga	acgtggagaa	gcactttctc	gcagagaaaa	taatggggat	60
tgtagctttt	gagggagccg	aaagaaaaat	cagactggaa	ggaagagatc	agtggcgtat	120
tgtgatggaa	tcagcgggat	tcaaattttac	caattttaagt	cattatgcaa	ggagccaagc	180
tcgaattctt	ctctataatt	attgtgaagc	gtattctcta	gatgaatcgt	cggggtttct	240
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&lt;210&gt; 1870

&lt;211&gt; 301

&lt;212&gt; DNA

&lt;213&gt; Pinus radiata

&lt;400&gt; 1870

ctatacctcc	gcctcttgtc	aattttcaggc	tctttcttcc	tgattttttca	gacagtgtac	60
agtcgcgata	ttcacacaag	gccgccatta	tcattctatct	ttcaagaagc	agtagacca	120
acaagcaaaa	gcggaaaaac	tatgggaaag	aagaagaggn	aggcccccaa	ggctctggtgt	180
tattactgtg	agcgcgagtt	cgntgatgaa	aagatattgg	ttcagcaccn	gaaggccaaa	240
catttcaagt	gccatgtctg	ccacaagaag	ttgtctaccc	gctggaggca	tggccatcca	300
t						301

&lt;210&gt; 1871

&lt;211&gt; 301

&lt;212&gt; DNA

&lt;213&gt; Pinus radiata

&lt;400&gt; 1871

ggctgcacca	ctgtagtaga	aacttttagcc	aagtggcagg	agctgaacag	ccagggtggaa	60
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tgcattgaaa	gaaagggtgg	tcctgataat	ggacgttgca	actatagagg	agtcaggcag	180
agaacgtggg	gaaaatgggt	tgcggaatc	agagaaccga	atcgtggaag	tcgactgtgg	240
ttgggtacgt	tctcttcagc	ggaggaggca	gcacgtgctt	atgatcaggc	tgcgagggtt	300
a						301

&lt;210&gt; 1872

&lt;211&gt; 447

&lt;212&gt; DNA

&lt;213&gt; Pinus radiata

&lt;400&gt; 1872

aagaaaccta	cttggggcaa	gagctcagcc	catgaaactt	tctgctaaaa	atgattcaaa	60
actgggtatt	gcaaggcctg	ccaagctcta	cagaggagt	agacagaggc	actgggggaa	120
atgggtagca	gagatcagat	tacctaggaa	tagaaccagg	ctctggcttg	gaacttttga	180
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ccataatgtt	ctttcgccac	cgggtaaatgc	gttatctgtg	ctgaaatctt	ctgttgatgc	360
aaagctccag	gcaatttgcc	agcgtttatc	ccaggaaaat	tcttcagaaa	atcgtctgat	420
ggcacacagt	gccacaatg	aagctct				447

&lt;210&gt; 1873

&lt;211&gt; 311

&lt;212&gt; DNA

&lt;213&gt; Pinus radiata

&lt;400&gt; 1873

gaagatggca	gcaagggtta	caaggccgta	aatccccatc	ccaaaaaggg	cgctgcctcg	60
tggctggtgg	acatggtgga	gaaactggtg	gttgaaactt	ctgcgttgta	tagttcgaag	120
aagcctctgc	attttctttt	ggggaacttc	gctccagtct	cggaactgc	ccccaaatcg	180
cacctgcctg	ttgttgggca	acttcctagt	tgcttggtatg	gagagttcgt	gcgcgttggt	240
cccaatccga	aattcgcacc	ggtagctggc	tatcactggt	ttgatggaga	tggaatgac	300
catggtctca	g					311

&lt;210&gt; 1874

&lt;211&gt; 383

&lt;212&gt; DNA

&lt;213&gt; Pinus radiata

&lt;400&gt; 1874

ttctcgcccg	ttttttccct	gcactcacca	cttccatcgc	cattgctgga	accctagaag	60
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ctctattgta	tcatagtatt	cagcaagaga	ggccatgggg	cggggaaaga	tcgagctgaa	180
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taataccggc	agactctacg	acttctcgag	ctccagtatg	gagaagatga	ttgaaacata	360
ctatcgattt	attgaaaaaa	atg				383

&lt;210&gt; 1875

&lt;211&gt; 235

&lt;212&gt; DNA

&lt;213&gt; Pinus radiata

&lt;400&gt; 1875

agagattcag	gggtgtgagg	aggagatcgt	gggggaaatg	ggtagcggag	atcaggatgc	60
tccgatgccg	atccgcgta	tgggtgggat	cctaccacac	tgcagaacag	gcagctcgtg	120
cctatgatgc	tgctcttttc	tgcttacgag	gtcctgctgc	tttctcaac	ttccctgaat	180
ctccacctgc	tcagttttctc	ccatatcccc	tgcgccctct	tcatgatatt	catct	235

&lt;210&gt; 1876

&lt;211&gt; 416

&lt;212&gt; DNA

&lt;213&gt; Pinus radiata

&lt;400&gt; 1876

gattgtatga	gatatcagaa	aataaaactg	attttaattc	tgcaggcatc	tcagaaaaac	60
aaaactggct	ttacttctac	aggcatctca	gaaaataaaa	ctgggtttac	ttctgcacag	120
atgtcagaat	aacaaaactc	gttttacttt	tgcagacatc	tcagacaata	aaactgggtg	180
gttttagtac	ttgcccagac	atctgagaaa	aacaaaactg	gttttacttc	tgcgcgcggt	240
aagggttttac	aagcttgaat	tcaaaactta	taatcgggcg	ctgtttatat	gtccaacgga	300
aatgtgagg	tcctacacac	gctgacgcgc	gagctcgtcg	ccagttataa	acgtaccatg	360

gaagccgtag ggcacccggg agggcagttt gacggaggcc acgacgtcga ggcccc 416

<210> 1877  
 <211> 320  
 <212> DNA  
 <213> Pinus radiata

<400> 1877

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tgtaatatat	tcagagctc	atactgcaca	gctttgctta	gtctgtgatg	ctaaaattca	180
tgggtggtagc	aaggcttcgt	tgtgtcatga	aagagtttgg	gtttgtgaag	natgtgagca	240
ggccccagct	gtggttacat	gcaaggcaga	tgcagcagct	ttatgtgtag	cctgtgatac	300
tgatattcat	tctgccaatc					320

<210> 1878  
 <211> 456  
 <212> DNA  
 <213> Pinus radiata

<400> 1878

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tgggggagct	gggcatctga	aatccggata	ccgagatcca	gaaagaagat	atggcttggc	240
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cgtgagcaaa	ttcagcatgc	cgcgcgcgaa	tatgcgttga	gccagggccc	ttcgagtttg	420
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<210> 1879  
 <211> 491  
 <212> DNA  
 <213> Pinus radiata

<400> 1879

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ctcccgatg	ccgtcagggt	gacgggtgac	ggcgatctgg	tgacgacggg	caggttcgat	420
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acgggcgagc	t					491

<210> 1880  
 <211> 310  
 <212> DNA  
 <213> Pinus radiata

<400> 1880

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acttttctt	ccagcatccc	agtcaatcga	agcatctaca	gatgtccgta	tcagcaatgc	300
tcaccatcat						310

<210> 1881  
 <211> 251

&lt;212&gt; DNA

&lt;213&gt; Pinus radiata

&lt;400&gt; 1881

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attgtaagggt	gccccaaagag	gccggaatcg	tgaaggaatt	tcaagcctgg	actatgcccc	120
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atctctgctc	cggctgcgac	gtcaaagtgc	acggcgccaa	caagctggcg	tcgcgccacg	240
agaggggtgtg	g					251

&lt;210&gt; 1882

&lt;211&gt; 351

&lt;212&gt; DNA

&lt;213&gt; Pinus radiata

&lt;400&gt; 1882

cacgagggcc	agagctgtgg	ctgttcccag	aagaggatat	catcagctgt	ccagtttgtc	60
ctaagagact	acagaagaag	aatatagaag	atgggtagat	ccccttgccc	cccaaaagaa	120
gcgcttaacc	gtggggcttg	gacaggcatg	gaggatacga	ttctcaccga	gtacattcga	180
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aattcatcag	tcatatatat	cagaaattta	tagtcgagtc	taagaggag	a	351

&lt;210&gt; 1883

&lt;211&gt; 450

&lt;212&gt; DNA

&lt;213&gt; Pinus radiata

&lt;400&gt; 1883

tcccttatca	cagaatagaa	actgatggct	agtcagatgc	cagaatgaac	cctctaaatt	60
aaatgtagcc	cgcctagaac	attagaagaa	gcaaaagcaa	acattcatga	tcaataaatg	120
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taccgcgccc	catcttcagc	aaaatcccaa	aatctgagta	tgggcaggcg	ttgaacttaa	420
atttgctcta	tgaacagaat	taccgagctt				450

&lt;210&gt; 1884

&lt;211&gt; 386

&lt;212&gt; DNA

&lt;213&gt; Pinus radiata

&lt;400&gt; 1884

aaatgatcag	aggcggttct	ccagttattc	acaacaaaga	aaagggtccc	cgcttcgggc	60
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tgaatctcga	gagtacttct	agagcgggcg	cgggcccatc	gattttccac	ccgggtgggg	360
taccaggttaa	gtgtacccaa	ttcgcc				386

&lt;210&gt; 1885

&lt;211&gt; 190

&lt;212&gt; DNA

&lt;213&gt; Pinus radiata

&lt;400&gt; 1885

aaatgatcag	aggcggttct	ccagttattc	acaacaaaga	aaagggtccc	cgcttcgggc	60
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cctgtatgac 190

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 <212> DNA  
 <213> Pinus radiata

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 agaagacgag gttgtcgtca tcggctcctg tatgaccccg ccggacgcca ttttcaacga 180  
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 gtccaccaga cgcgagatca cgccgatgaa tctcgagagt acttctagag cggccgcggg 300  
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<210> 1887  
 <211> 329  
 <212> DNA  
 <213> Pinus radiata

<400> 1887  
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 ctttcatctc tggaacgcct gggaagaagg agaagacgag gttgtcgtca tcggctcctg 180  
 tatgaccccg ccggacgcca ttttcaacga atctgacagc gcgctgcgga gtgttctgtc 240  
 ggaaattcgg ctcaatctca aaaccggctt gtccaccaga cgcgagatca cgccgatgaa 300  
 tctcgagagt acttctagaa gcggccggc 329

<210> 1888  
 <211> 101  
 <212> DNA  
 <213> Pinus radiata

<400> 1888  
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<210> 1889  
 <211> 326  
 <212> DNA  
 <213> Pinus radiata

<400> 1889  
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 tgctttcatc tctggaacgc ctgggaagaa ggagaagacg aggttgtcgt catcggctcc 180  
 tgtatgaccc cgctggacgc cattttcaac gaatctgaca gcgcgctgcg gagtgttctg 240  
 tcggaaattc ggctcaatct caaaaccggc ttgtccacca gacgcgagat cacgccgatg 300  
 aatctcgaga gtacttctag agcgg 326

<210> 1890  
 <211> 246  
 <212> DNA  
 <213> Pinus radiata

<400> 1890  
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 acgaatctga cagcgcgctg cggagtgttc tgtcggaaat tcggctcaat ctcaaaaccg 180  
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cggggc 246

<210> 1891  
 <211> 238  
 <212> DNA  
 <213> Pinus radiata

<400> 1891  
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<210> 1892  
 <211> 349  
 <212> DNA  
 <213> Pinus radiata

<400> 1892  
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<210> 1893  
 <211> 417  
 <212> DNA  
 <213> Pinus radiata

<400> 1893  
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<210> 1894  
 <211> 456  
 <212> DNA  
 <213> Pinus radiata

<400> 1894  
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 ctacagaggc gtcacaaggc atagatggac aggacgatat gaagctcatc tttgggacaa 180  
 aagtacttgg aaccagaacc aaaataaaaaa gggcaagcaa gtgtacctag gtgcctatga 240  
 tgaggaggag gctgcagcca gagcttatga ccttgccgct ctgaaatatt ggggtcctgg 300  
 aactctcatt aattttcctg ttagtgacta tgctagagat attgaagaga tgcagagcat 360  
 ttcaaggga gatttcctgg cttctctcag acggaaaagt agtgggtttt caaggggaat 420  
 gtcaaaatac cgtggactgc caagcaatca caaact 456

<210> 1895  
 <211> 456  
 <212> DNA  
 <213> Eucalyptus grandis

<400> 1895

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ctacagaggg	gtcacaaagg	atagatggac	aggacgatat	gaagctcatc	tttgggacaa	180
aagtacttgg	aaccagaacc	aaaataaaaa	gggcaagcaa	gtgtacctag	gtgcctatga	240
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aactctcatt	aattttcctg	ttagtgacta	tgctagagat	attgaagaga	tgcagagcat	360
ttcaagggaa	gatttcctgg	cttctctcag	acggaaaagt	agtgggtttt	caaggggaat	420
gtcaaaaatac	cgtggactgc	caagcaatca	caaact			456

&lt;210&gt; 1896

&lt;211&gt; 388

&lt;212&gt; DNA

&lt;213&gt; Eucalyptus grandis

&lt;400&gt; 1896

gtaaatcaat	acctgggtcag	catcctaatt	tagcattcaa	tgttggcagt	attagatcca	60
accagcagca	gcttcagcaa	cagcatgatc	tgccccctct	ccccaaagcca	gcaacaatgc	120
cttttgctc	ttcagtaagt	atagcaaata	attcccagat	gcctggttta	gggtcaagag	180
gggtaaatcag	gatgacagat	gcatccatca	aaagttcctt	agctcaaggt	gggtgggctgc	240
agactggagt	tggcatgact	gggttagaca	ctaggggagt	tgctcttcag	acagtatctc	300
ctgctaacca	tatatctccg	gatgtaatct	ctaggaacac	gatggattcg	tcttcactct	360
caccagttcc	ttatccgttt	ggccgggg				388

&lt;210&gt; 1897

&lt;211&gt; 202

&lt;212&gt; DNA

&lt;213&gt; Eucalyptus grandis

&lt;400&gt; 1897

atgcgaaaca	tgctcaaaca	cccccaacat	catgggaagg	tggaagtggg	gctgattcgg	60
aggttaacat	gttgaaggat	tacgtttcag	aggactggat	tacaggtgtt	gaccgcttcc	120
ggttgagctt	ggttgaattt	cttgataagt	tgaataagta	tgcggagtcc	tctgttcata	180
tgtacgtgtc	ccttgaaaag	gc				202

&lt;210&gt; 1898

&lt;211&gt; 289

&lt;212&gt; DNA

&lt;213&gt; Eucalyptus grandis

&lt;400&gt; 1898

gttgaatggg	gattcaaaca	atggcttcac	aaggcggcgg	cggcagcagc	ggtaatgcc	60
gaggtggcgg	tggcaataat	ggaaaatcca	ctgaagtcca	gccattgact	cggcagaatt	120
caatatacag	tctcactctt	gatgaggttc	aaaaccagtt	aggtgattta	gggaagccat	180
tgagcagcat	gaacctggac	gagcttttga	agaatgtctg	gacagctgag	gccggtcagt	240
caatgtttat	ggatgttgag	ggcacggctg	tggctaataca	aaatgctct		289

&lt;210&gt; 1899

&lt;211&gt; 477

&lt;212&gt; DNA

&lt;213&gt; Eucalyptus grandis

&lt;400&gt; 1899

cttgaaatcg	ggcgtgcccc	gctcgatcgc	agcttcaagc	agctcaaaaa	gactgtatat	60
cactcgacga	gtgtgctgag	cacattgagc	togagctggt	catcaaagcc	gccattggca	120
gtgaagtacc	agctcaaccc	cggctcactc	actgaatcag	atgattcaaa	gagcctctgc	180
tccactctgg	acaagctctt	ggcttgggag	agaagctct	atgaggaagt	gaaggctaga	240
gaaggtgaga	agatagagca	tgaaaagaag	ttgtcagtac	ttcagagcca	ggaaggcaag	300
ggagaagatg	aaaccaaggt	agacaagacc	aaggcctcat	taaataagtt	gcaagcacta	360
atagctgtta	cgtcggaggc	tgtctctaca	acttcaaagt	caattattgg	cctcagagac	420
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<210> 1900  
 <211> 1243  
 <212> DNA  
 <213> *Eucalyptus grandis*

<400> 1900  
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 gtgctcgttg ctattccgtc cgctcgatagg aggcctaggct acgctgaaag aagttgatga 180  
 gcgcaatttc actgatggag tggaaatgcga aacctcctct gcagtgaggaa tgggagaatc 240  
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 gaatcgaggc ggaggagctg attgaccccg ggtccttatt tctgtatgag aatgggtggcg 360  
 gcagcagcag ttgtaccagc attgatccgg gttacacttc tgtgtccaag agctcgaaat 420  
 cggcttctgt caattcttcg tctacggacg aattgaaaat ctcgaaattc tctgtggagg 480  
 cgcatgaagg cttttctctg cagagtagca agaaaagaatt ggcgggtgaat gattttaccg 540  
 gaatgtcacc ggcaactcgag ccttcgggtc gctctggtga gccactgctc agtctaaagc 600  
 tcggtaaaaag gatataattt gaaaatacta ttgacaagga tcatgtgaag acccaagacc 660  
 ttccttcggg catgaaatca cctgatactc cagcaaagag aaacaaatcc aactgtcagg 720  
 gtacgtccgc cccacgctgc caagttgaag gctgtaacct tgacctctct tcaactaaag 780  
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 gtgggtataga gcgtcgggtt tgtcagcaat gcagcaggtt tcatgggcta tctgagtttg 900  
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 ccccgccaga tgtgacccag ttgaatccgg ctgactgtc tgcactgttt tatgggtggga 1020  
 tgcagcagtt gaatccagtc ttgagcagag ctccagctat ccacaccagg tctactgcta 1080  
 gtttttaaatg ggcagataca caggacacta agctcataga gaaaggtccg aagcttccaa 1140  
 taggcggagg tgttgggtgag tgtatcacta tcccaagcaa tgggataccg gacaccctca 1200  
 agtcactgg attgggcaaa agctataacg aacttctatc atc 1243

<210> 1901  
 <211> 366  
 <212> DNA  
 <213> *Eucalyptus grandis*

<400> 1901  
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 gatggagaga tgattgcaa agccagcaat gaaaatagca tctatggtga ccatggtctt 180  
 gatctcaatc tcgggatatc agcttcttcc aggggaatgg tggaaacctt agagccctcg 240  
 gacgacatgc gtcagggaag tagtttaagg gtaggaaact ctgctgcata ctgggggtgat 300  
 ccactgtgtg aaggtttatc gatgacatct ggacaacctc tccttgacgg gtgtttatcc 360  
 taccgt 366

<210> 1902  
 <211> 466  
 <212> DNA  
 <213> *Pinus radiata*

<400> 1902  
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 gctcatgcgg ctgcgagagc ttacgacagg gcagctatca agtttcgagg agttgaagct 120  
 gatataaatt ttactctcac cgactatcaa gaagatttag accagacgag caagctctct 180  
 aaagaagagt ttgtgcatat tctccgtcgt caaagtactg gtttctctcg tggaaagtcc 240  
 aagtatagag gcgttaccct gcacaagtgt gggcgatggg aagccagaat gggtaattc 300  
 ctaggaaaaa agtatatata tttgggatta tttgacagtg aagaggaggc tgcaagggca 360  
 tatgataagg ctgctatcag gtgcaatgga aaggaggcag taacgaactt tgatcctagc 420  
 ttatatgaaa aagaaattct tgaagaaaga agagagagtc agactt 466

<210> 1903  
 <211> 240  
 <212> DNA  
 <213> *Pinus radiata*



<400> 1903  
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 gaaaagaata cgttccaagg attcaggaga agatggtgaa gatagacaga gagaacatcc 120  
 tttcattgtt actgagcccg gtgaacttgc aagagggaaa aagaatgggt tagactatct 180  
 ctttgatctt tatgaacagt gcgggaaatt tctgctggat gtgcaacata ttgcgaagga 240

<210> 1904  
 <211> 495  
 <212> DNA  
 <213> Pinus radiata

<400> 1904  
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 attgccaggc cgaggggtgt aaggcaaaact tgagcagtgc caaacactac catcgccggc 120  
 ataagggtttg tgaattgcac tcaagggtt ctactgttat tgtgggtggg ttcatcagc 180  
 ggttctgcca acaatgtagc agatttcacg caagatctga attcgacgag ggaaaacgaa 240  
 gctgcagaaa gcgccttgct gaccacaaca gacgaaggag aaaacctcag ccaagtacat 300  
 gtgttacatc acaatctcag gctgggacaa cagggtttaga aaatgataac cagacaacta 360  
 aaggatcatc aggtcacatt acaacggctg ttcagaatac accgaacatt agcagaagca 420  
 ctagtagtac tagtccgtcc ttgattacat cagtaccgat gatgatgttc ccaataact 480  
 ataaaggaca tagtc 495

<210> 1905  
 <211> 377  
 <212> DNA  
 <213> Eucalyptus grandis

<400> 1905  
 taacactaca ttcacacccc caaacagcaa acggatcatc tcgcacaatc catcaagtgt 60  
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 tatagcggga gattgcaact tgaaagacag attacatata caaagtggaa tcacatatag 180  
 tcagcaacaa agagctccct tttccacatt ggcgacgaac ttccgcacta gcaattcgcc 240  
 cccccagcaa tctgaaagca accaaaaaga agccaccgat gatgctcatg gcaccaacgt 300  
 ccaaggaaaca tttcttaaaa aggatgatcc aaaagtact gctctgattc aacaagccga 360  
 gctgctcagt tcccttg 377

<210> 1906  
 <211> 377  
 <212> DNA  
 <213> Eucalyptus grandis

<400> 1906  
 gtgatttttag tgctcgatac tttgaaaagg gcatcaatac agtcaaacga gataaaaaaga 60  
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 aacgaggctg tttttacgca aacttcggtc ataagctgtg ccttgcaatc gtttgtaaaa 180  
 cctccaaatg ctaaggtcac ggtcacattc ctctctgatc tttgagcagc tcatggcacc 240  
 aacgtccaag gaacatttct taaaaaggat gatccaaaag ttactgctct gattcaacaa 300  
 gccgagctgc tcagttccct tgcggtgaaa gtcaatgcag ataacatgga ccagagtctt 360  
 gaaaatgctt ggaagg 377

<210> 1907  
 <211> 1668  
 <212> DNA  
 <213> Pinus radiata

<400> 1907  
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 cgggcccggt aaagtggcga ttccggccgt gtcgggggat tcggggacga ttgggttaaa 180  
 gctgggcaag cggacctatt ttgaggcggt gaaggcaatt ccgacagcga tcccccgcc 240

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catcctgatg	gctagatcac	ctttcatgca	tccacggata	gcttcaaact	tggaggagaa	660
ttcgctcgat	ttcaaacttg	gaggatatgg	aaaaggagct	tggccgagga	ttaaggctga	720
ggatgtatca	tcatatgatg	ggcaattatc	aaccaaatac	cctctcccgt	cataatgctg	780
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&lt;210&gt; 1908

&lt;211&gt; 821

&lt;212&gt; DNA

&lt;213&gt; Eucalyptus grandis

&lt;400&gt; 1908

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&lt;210&gt; 1909

&lt;211&gt; 105

&lt;212&gt; DNA

&lt;213&gt; Eucalyptus grandis

&lt;400&gt; 1909

gggaagagga	gcgtagagtg	ggattcgaac	gattggaagt	gggacgggtga	tctgttcgtc	60
gctaggccgc	tgaacccggg	ccgctccgat	ttccccggcc	ggcag		105

&lt;210&gt; 1910

&lt;211&gt; 338

&lt;212&gt; DNA

&lt;213&gt; Pinus radiata

&lt;400&gt; 1910

cagaagagac	ctgccatgga	aacacatttt	gcaggacaga	aatttcatca	ttcacaggct	60
cacagatacc	ccagtgccag	tccgaggggt	gtaaagcaaa	cttgagcagt	gccaaacact	120
accatcgccg	acataaagtt	tgcgaattcc	actctaaggc	tectacggtc	gttggtggcg	180
gtcagattca	gcggttttgc	caacagtgtg	gtagatttca	tcagacatct	gaatttgacg	240
gaggaaagcg	gagctgcaga	aagcgccttg	ctgaccacaa	cagacgccgg	cggaaaccta	300
aaccgagtca	atgtactaca	tcccaatgtc	aggcaggg			338

<210> 1911  
 <211> 465  
 <212> DNA  
 <213> Pinus radiata

<400> 1911						
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<210> 1912  
 <211> 509  
 <212> DNA  
 <213> Pinus radiata

<400> 1912						
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caccatcaca	gtctgccgct	gtgcgcccga	catctacccg	agacgattct	tccgtcatgg	180
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gcctctctca	attcacgcca	gccgacaacg	acaagttcgt	cagcctcgag	agagaatcag	420
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<210> 1913  
 <211> 151  
 <212> PRT  
 <213> Pinus radiata

<400> 1913	
Glu Gly Asn Glu Ser Asp Leu Leu Lys Gly Met Lys Lys Ala Arg Arg	
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20 25 30	
Ala Ala Gly Lys Arg Ser Ser Ile Tyr Arg Gly Val Thr Arg His Arg	
35 40 45	
Trp Thr Gly Arg Tyr Glu Ala His Leu Trp Asp Lys Ser Thr Trp Asn	
50 55 60	
Gln Asn Gln Asn Lys Lys Gly Lys Gln Val Tyr Leu Gly Ala Tyr Asp	
65 70 75 80	
Glu Glu Glu Ala Ala Ala Arg Ala Tyr Asp Leu Ala Ala Leu Lys Tyr	
85 90 95	
Trp Gly Pro Gly Thr Leu Ile Asn Phe Pro Val Ser Asp Tyr Ala Arg	
100 105 110	
Asp Ile Glu Glu Met Gln Ser Ile Ser Arg Glu Asp Phe Leu Ala Ser	
115 120 125	
Leu Arg Arg Lys Ser Ser Gly Phe Ser Arg Gly Met Ser Lys Tyr Arg	

130 135 140  
 Gly Leu Pro Ser Asn His Lys  
 145 150

<210> 1914  
 <211> 128  
 <212> PRT  
 <213> Eucalyptus grandis

<400> 1914  
 Lys Ser Ile Pro Gly Gln His Pro Asn Leu Ala Phe Asn Val Gly Ser  
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 Ile Arg Ser Asn Gln Gln Gln Leu Gln Gln Gln His Asp Leu Pro Leu  
 20 25 30  
 Leu Pro Lys Pro Ala Thr Met Pro Phe Ala Ser Ser Val Ser Ile Ala  
 35 40 45  
 Asn Asn Ser Gln Met Pro Gly Leu Gly Ser Arg Gly Val Ile Arg Met  
 50 55 60  
 Thr Asp Ala Ser Ile Lys Ser Ser Leu Ala Gln Gly Gly Gly Leu Gln  
 65 70 75 80  
 Thr Gly Val Gly Met Thr Gly Leu Asp Thr Arg Gly Val Ala Leu Gln  
 85 90 95  
 Thr Val Ser Pro Ala Asn His Ile Ser Pro Asp Val Ile Ser Arg Asn  
 100 105 110  
 Thr Met Asp Ser Ser Ser Leu Ser Pro Val Pro Tyr Pro Phe Gly Arg  
 115 120 125

<210> 1915  
 <211> 66  
 <212> PRT  
 <213> Eucalyptus grandis

<400> 1915  
 Ala Lys His Ala Gln Thr Pro Pro Thr Ser Trp Glu Gly Gly Ser Gly  
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 Ala Asp Ser Glu Val Asn Met Leu Lys Asp Tyr Ala Ser Glu Asp Trp  
 20 25 30  
 Ile Thr Gly Val Asp Arg Phe Arg Leu Ser Leu Val Glu Phe Leu Asp  
 35 40 45  
 Lys Leu Asn Lys Tyr Ala Glu Ser Ser Val His Met Tyr Val Ser Leu  
 50 55 60  
 Glu Lys  
 65

<210> 1916  
 <211> 89  
 <212> PRT  
 <213> Eucalyptus grandis

<400> 1916  
 Met Ala Ser Gln Gly Gly Gly Gly Ser Ser Gly Asn Ala Arg Gly Gly  
 1 5 10 15  
 Gly Gly Asn Asn Gly Lys Ser Thr Glu Val Gln Pro Leu Thr Arg Gln  
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 Asn Ser Ile Tyr Ser Leu Thr Leu Asp Glu Val Gln Asn Gln Leu Gly  
 35 40 45  
 Asp Leu Gly Lys Pro Leu Ser Ser Met Asn Leu Asp Glu Leu Leu Lys  
 50 55 60  
 Asn Val Trp Thr Ala Glu Ala Gly Gln Ser Met Phe Met Asp Val Glu  
 65 70 75 80  
 Gly Thr Ala Val Ala Asn Gln Asn Ala

85

<210> 1917  
 <211> 159  
 <212> PRT  
 <213> Eucalyptus grandis

<400> 1917  
 Leu Glu Ile Gly Arg Ala Gln Leu Asp Arg Ser Phe Lys Gln Leu Lys  
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 Lys Thr Val Tyr His Ser Thr Ser Val Leu Ser Thr Leu Ser Ser Ser  
 20 25 30  
 Trp Ser Ser Lys Pro Pro Leu Ala Val Lys Tyr Gln Leu Asn Pro Gly  
 35 40 45  
 Ser Leu Thr Glu Ser Asp Asp Ser Lys Ser Leu Cys Ser Thr Leu Asp  
 50 55 60  
 Lys Leu Leu Ala Trp Glu Lys Lys Leu Tyr Glu Glu Val Lys Ala Arg  
 65 70 75 80  
 Glu Gly Glu Lys Ile Glu His Glu Lys Lys Leu Ser Val Leu Gln Ser  
 85 90 95  
 Gln Glu Gly Lys Gly Glu Asp Glu Thr Lys Val Asp Lys Thr Lys Ala  
 100 105 110  
 Ser Leu Asn Lys Leu Gln Ala Leu Ile Ala Val Thr Ser Glu Ala Val  
 115 120 125  
 Ser Thr Thr Ser Asn Ala Ile Ile Gly Leu Arg Asp Ser Arg Leu Val  
 130 135 140  
 Pro Gln Leu Val Glu Leu Cys His Gly Phe Met Tyr Met Trp Arg  
 145 150 155

<210> 1918  
 <211> 349  
 <212> PRT  
 <213> Eucalyptus grandis

<400> 1918  
 Met Glu Trp Asn Ala Lys Pro Pro Leu Gln Trp Glu Trp Glu Asn Leu  
 1 5 10 15  
 Met Met Phe Gly Ser Lys Ala Thr Glu Thr Ser Lys Pro Leu Arg Ala  
 20 25 30  
 Thr Asp Trp Gly Ile Glu Ala Glu Glu Leu Ile Asp Pro Gly Ser Leu  
 35 40 45  
 Phe Leu Tyr Glu Asn Gly Gly Gly Ser Ser Ser Cys Thr Ser Ile Asp  
 50 55 60  
 Pro Gly Tyr Thr Ser Val Ser Lys Ser Ser Lys Ser Ala Ser Val Asn  
 65 70 75 80  
 Ser Ser Ser Thr Asp Glu Leu Lys Ile Ser Lys Phe Ser Val Glu Ala  
 85 90 95  
 His Glu Gly Phe Ser Leu Gln Ser Ser Lys Lys Glu Leu Ala Val Asn  
 100 105 110  
 Asp Phe Thr Gly Met Ser Pro Ala Leu Glu Pro Ser Val Cys Ser Gly  
 115 120 125  
 Glu Pro Leu Leu Ser Leu Lys Leu Gly Lys Arg Ile Tyr Phe Glu Asn  
 130 135 140  
 Thr Ile Asp Lys Asp His Val Lys Thr Gln Asp Leu Pro Ser Val Met  
 145 150 155 160  
 Lys Ser Pro Asp Thr Pro Ala Lys Arg Asn Lys Ser Asn Cys Gln Gly  
 165 170 175  
 Thr Ser Ala Pro Arg Cys Gln Val Glu Gly Cys Asn Leu Asp Leu Ser  
 180 185 190  
 Ser Ala Lys Asp Tyr His Arg Lys His Arg Val Cys Glu Ser His Ser  
 195 200 205

Lys Cys Pro Lys Val Ile Val Ser Gly Ile Glu Arg Arg Phe Cys Gln  
 210 215 220  
 Gln Cys Ser Arg Phe His Gly Leu Ser Glu Phe Asp Glu Lys Lys Arg  
 225 230 235 240  
 Ser Cys Arg Lys Arg Leu Ser Asp His Asn Ala Arg Arg Arg Lys Pro  
 245 250 255  
 Pro Pro Asp Val Thr Gln Leu Asn Pro Ala Arg Leu Ser Ala Leu Phe  
 260 265 270  
 Tyr Gly Gly Met Gln Gln Leu Asn Pro Val Leu Ser Arg Ala Pro Ala  
 275 280 285  
 Ile His Thr Arg Ser Thr Ala Ser Phe Lys Trp Ala Asp Thr Gln Asp  
 290 295 300  
 Thr Lys Leu Ile Glu Lys Gly Pro Lys Leu Pro Ile Gly Gly Gly Val  
 305 310 315 320  
 Gly Glu Cys Ile Thr Ile Pro Ser Asn Gly Ile Pro Asp Thr Leu Lys  
 325 330 335  
 Ser Thr Gly Leu Gly Lys Ser Tyr Asn Glu Leu Leu Ser  
 340 345

&lt;210&gt; 1919

&lt;211&gt; 122

&lt;212&gt; PRT

&lt;213&gt; Eucalyptus grandis

&lt;400&gt; 1919

Lys Lys Tyr Ile Tyr Leu Gly Leu Phe Asp Ser Glu Val Glu Ala Ala  
 1 5 10 15  
 Arg Ala Tyr Asp Lys Ala Ala Ile Lys Cys Asn Gly Arg Glu Ala Val  
 20 25 30  
 Thr Asn Phe Glu Pro Ser Thr Tyr Asp Gly Glu Met Ile Ala Lys Ala  
 35 40 45  
 Ser Asn Glu Asn Ser Ile Tyr Gly Asp His Gly Leu Asp Leu Asn Leu  
 50 55 60  
 Gly Ile Ser Ala Ser Ser Arg Gly Met Val Glu Thr Leu Glu Pro Ser  
 65 70 75 80  
 Asp Asp Met Arg Gln Gly Ser Ser Leu Arg Val Gly Asn Ser Ala Ala  
 85 90 95  
 Ser Trp Gly Asp Pro Ser Val Glu Gly Leu Ser Met Thr Ser Gly Gln  
 100 105 110  
 Pro Leu Leu Asp Gly Cys Leu Ser Tyr Arg  
 115 120

&lt;210&gt; 1920

&lt;211&gt; 155

&lt;212&gt; PRT

&lt;213&gt; Pinus radiata

&lt;400&gt; 1920

Leu Ile His Gly Gly Gly Gly Asp Asp Tyr Val Gly Leu Cys Glu Gly  
 1 5 10 15  
 Gly Phe Asp Thr Ala His Ala Ala Ala Arg Ala Tyr Asp Arg Ala Ala  
 20 25 30  
 Ile Lys Phe Arg Gly Val Glu Ala Asp Ile Asn Phe Thr Leu Thr Asp  
 35 40 45  
 Tyr Gln Glu Asp Leu Asp Gln Thr Ser Lys Leu Ser Lys Glu Glu Phe  
 50 55 60  
 Val His Ile Leu Arg Arg Gln Ser Thr Gly Phe Ser Arg Gly Ser Ser  
 65 70 75 80  
 Lys Tyr Arg Gly Val Thr Leu His Lys Cys Gly Arg Trp Glu Ala Arg  
 85 90 95  
 Met Gly Gln Phe Leu Gly Lys Lys Tyr Ile Tyr Leu Gly Leu Phe Asp

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          100          105          110
Ser Glu Glu Glu Ala Ala Arg Ala Tyr Asp Lys Ala Ala Ile Arg Cys
          115          120          125
Asn Gly Lys Glu Ala Val Thr Asn Phe Asp Pro Ser Leu Tyr Glu Lys
          130          135          140
Glu Ile Leu Glu Glu Arg Arg Glu Ser Gln Thr
145          150          155

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<210> 1921  
 <211> 79  
 <212> PRT  
 <213> Pinus radiata

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          <400> 1921
Leu Ile Gly Met Pro Asp Thr Asn Tyr Gly Ser Glu Gln Thr Asn Ala
 1          5          10          15
Cys Lys Lys Gln Lys Arg Ile Arg Ser Lys Asp Ser Gly Glu Asp Gly
          20          25          30
Glu Asp Arg Gln Arg Glu His Pro Phe Ile Val Thr Glu Pro Gly Glu
          35          40          45
Leu Ala Arg Gly Lys Lys Asn Gly Leu Asp Tyr Leu Phe Asp Leu Tyr
          50          55          60
Glu Gln Cys Gly Lys Phe Leu Leu Asp Val Gln His Ile Ala Lys
65          70          75

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<210> 1922  
 <211> 164  
 <212> PRT  
 <213> Pinus radiata

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          <400> 1922
His Gly Asn Arg Phe Cys Arg Thr Gly Ile Ser Ser Cys Ala Gly Ser
 1          5          10          15
Gln Ile Pro His Cys Gln Ala Glu Gly Cys Lys Ala Asn Leu Ser Ser
          20          25          30
Ala Lys His Tyr His Arg Arg His Lys Val Cys Glu Leu His Ser Lys
          35          40          45
Ala Ser Thr Val Ile Val Gly Gly Phe Ile Gln Arg Phe Cys Gln Gln
          50          55          60
Cys Ser Arg Phe His Pro Arg Ser Glu Phe Asp Glu Gly Lys Arg Ser
65          70          75          80
Cys Arg Lys Arg Leu Ala Asp His Asn Arg Arg Arg Arg Lys Pro Gln
          85          90          95
Pro Ser Thr Cys Val Thr Ser Gln Ser Gln Ala Gly Thr Thr Gly Leu
          100          105          110
Glu Asn Asp Asn Gln Thr Thr Lys Gly Ser Ser Gly His Ile Thr Thr
          115          120          125
Ala Val Gln Asn Thr Pro Asn Ile Ser Arg Ser Thr Ser Ser Thr Ser
          130          135          140
Pro Ser Leu Ile Thr Ser Val Pro Met Met Met Phe Pro Asn Asn Tyr
145          150          155          160
Lys Gly His Ser

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<210> 1923  
 <211> 125  
 <212> PRT  
 <213> Eucalyptus grandis

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          <400> 1923
Asn Thr Thr Phe Ile Thr Pro Asn Ser Lys Arg Ile Ile Ser His Asn

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1	5	10	15
Pro Ser Ser Val Asp Arg Pro Ala Glu Ser Ala Ala Leu Ala Lys Arg			
20	25	30	
Met Arg Arg Ala His Ile Gln Asn Ile Ala Gly Asp Cys Asn Leu Lys			
35	40	45	
Asp Arg Leu His Ile Gln Ser Gly Ile Thr Tyr Ser Gln Gln Arg			
50	55	60	
Ala Pro Phe Ser Thr Leu Ala Gln Asn Phe Arg Thr Ser Asn Ser Pro			
65	70	75	80
Pro Gln Gln Ser Glu Ser Asn Gln Lys Glu Ala Thr Asp Asp Ala His			
85	90	95	
Gly Thr Asn Val Gln Gly Thr Phe Leu Lys Lys Asp Asp Pro Lys Val			
100	105	110	
Thr Ala Leu Ile Gln Gln Ala Glu Leu Leu Ser Ser Leu			
115	120	125	

<210> 1924  
 <211> 50  
 <212> PRT  
 <213> Eucalyptus grandis

<400> 1924

Ala Ala His Gly Thr Asn Val Gln Gly Thr Phe Leu Lys Lys Asp Asp			
1	5	10	15
Pro Lys Val Thr Ala Leu Ile Gln Gln Ala Glu Leu Leu Ser Ser Leu			
20	25	30	
Ala Val Lys Val Asn Ala Asp Asn Met Asp Gln Ser Leu Glu Asn Ala			
35	40	45	
Trp Lys			
50			

<210> 1925  
 <211> 257  
 <212> PRT  
 <213> Pinus radiata

<400> 1925

Ala Val Ser Tyr Leu Arg Ser Gly Ile Glu Glu Arg Glu Ser Glu Arg			
1	5	10	15
Leu Thr Asn Lys Met Asn Met Lys Ile Arg Thr Ser Asp Thr Ser Thr			
20	25	30	
Pro Asp Asp Gln Gln Gln His Ser Gly Ala Val Lys Val Ala Ile Pro			
35	40	45	
Ala Val Ser Gly Asp Ser Gly Thr Ile Gly Leu Lys Leu Gly Lys Arg			
50	55	60	
Thr Tyr Phe Glu Ala Val Lys Ala Ile Pro Thr Ala Ile Pro Ser Pro			
65	70	75	80
Ser Cys Val Pro Ala Ala Lys Lys Gln Gln Ser Ala Leu Gln Gly Thr			
85	90	95	
His Met Val Pro Arg Cys Gln Val Glu Gly Cys Glu Met Glu Leu Thr			
100	105	110	
Ala Ala Lys Asp Tyr His Arg Arg His Lys Val Cys Glu Leu His Ser			
115	120	125	
Lys Phe Pro Lys Val Ile Val Asn Gly Ile Glu Gln Arg Phe Cys Gln			
130	135	140	
Gln Cys Ser Arg Phe His Thr Leu Ser Glu Phe Asp Glu Gly Lys Arg			
145	150	155	160
Ser Cys Arg Arg Arg Leu Ala Gly His Asn Gln Arg Arg Arg Lys Pro			
165	170	175	
Gln Leu Asn Ser Thr Ala Met Lys Ala Ala Arg Phe Ala Ser Thr Phe			
180	185	190	



Tyr Asp Asp Gly Arg Leu Ser Ser Ile Leu Met Ala Arg Ser Pro Phe  
                   195                                  200                                  205  
 Met His Pro Arg Ile Ala Ser Asn Leu Glu Glu Asn Ser Leu Asp Phe  
                   210                                  215                                  220  
 Lys Leu Gly Gly Tyr Gly Lys Gly Ala Trp Pro Arg Ile Lys Ala Glu  
 225                                  230                                  235                                  240  
 Asp Val Ser Ser Tyr Asp Gly Gln Leu Ser Thr Lys Tyr Pro Leu Pro  
                                   245                                  250                                  255  
 Ser

<210> 1926  
 <211> 230  
 <212> PRT  
 <213> Eucalyptus grandis

                  <400> 1926  
 Met Asp Val Gly Ser Gly Ser Trp Thr Thr Glu Ser Gly Ser Ser Ser  
   1                                  5                                  10                                  15  
 Pro Pro Pro Leu Glu Ser Leu Asn Gly Leu Lys Phe Gly Gln Lys Ile  
                   20                                  25                                  30  
 Tyr Phe Gln Asn Asn Asn Ser Ser Asn Asn Ala Ala Ala Pro Lys Asn  
                   35                                  40                                  45  
 Gly Ser Gly Ser Gly Ser Gly Ser Ser Ser Ala Ala Ala Pro Ala Pro  
                   50                                  55                                  60  
 Gly Ser Gly Thr Pro Pro Lys Lys Val Arg Ala Ser Ala Gly Gly Gly  
 65                                  70                                  75                                  80  
 Gly Cys Gly Ala Ile Gln Gly Gly Gln Pro Pro Arg Cys Gln Val Glu  
                                   85                                  90                                  95  
 Gly Cys Arg Val Asp Leu Ser Asp Ala Lys Ala Tyr Tyr Ser Arg His  
                   100                                  105                                  110  
 Lys Val Cys Gly Met His Ser Lys Ser Ala Thr Val Ile Val Ala Gly  
                   115                                  120                                  125  
 Ile Glu Gln Arg Phe Cys Gln Gln Cys Ser Arg Phe His Gln Leu Thr  
                   130                                  135                                  140  
 Glu Phe Asp Gln Gly Lys Arg Ser Cys Arg Arg Arg Leu Ala Gly His  
 145                                  150                                  155                                  160  
 Asn Glu Arg Arg Arg Lys Pro Pro Pro Gly Ser Leu Leu Ser Ser Arg  
                   165                                  170                                  175  
 Tyr Gly Arg Leu Gln Ser Ser Ile Phe Glu Asn Thr Thr Arg Val Gly  
                   180                                  185                                  190  
 Ser Phe Leu Met Asp Phe Thr Ala Tyr Pro Lys His Ala Trp Ser Ala  
                   195                                  200                                  205  
 Pro Arg Phe Ser Glu Arg Thr Thr Pro Gly Asp Leu Val Pro Gly Pro  
                   210                                  215                                  220  
 Gly Lys Val Tyr Pro His  
 225                                  230

<210> 1927  
 <211> 35  
 <212> PRT  
 <213> Eucalyptus grandis

                  <400> 1927  
 Gly Lys Arg Ser Val Glu Trp Asp Ser Asn Asp Trp Lys Trp Asp Gly  
   1                                  5                                  10                                  15  
 Asp Leu Phe Val Ala Arg Pro Leu Asn Pro Val Pro Ser Asp Phe Pro  
                   20                                  25                                  30  
 Gly Arg Gln  
                   35

<210> 1928  
 <211> 112  
 <212> PRT  
 <213> Pinus radiata

<400> 1928  
 Glu Glu Thr Cys His Gly Asn Thr Phe Cys Arg Thr Glu Ile Ser Ser  
 1 5 10 15  
 Phe Thr Gly Ser Gln Ile Pro Gln Cys Gln Ser Glu Gly Cys Lys Ala  
 20 25 30  
 Asn Leu Ser Ser Ala Lys His Tyr His Arg Arg His Lys Val Cys Glu  
 35 40 45  
 Phe His Ser Lys Ala Pro Thr Val Val Val Gly Gly Gln Ile Gln Arg  
 50 55 60  
 Phe Cys Gln Gln Cys Ser Arg Phe His Gln Thr Ser Glu Phe Asp Gly  
 65 70 75 80  
 Gly Lys Arg Ser Cys Arg Lys Arg Leu Ala Asp His Asn Arg Arg Arg  
 85 90 95  
 Arg Lys Pro Lys Pro Ser Gln Cys Thr Thr Ser Gln Cys Gln Ala Gly  
 100 105 110

<210> 1929  
 <211> 117  
 <212> PRT  
 <213> Pinus radiata

<400> 1929  
 Met Asp Glu Val Gln Val Lys Val Asp Ile Gln Ser Thr Asn Val Ser  
 1 5 10 15  
 Ala Asp Glu Pro Arg Pro Ala Lys Arg Gln Gly Phe Glu Leu Ala Lys  
 20 25 30  
 Ser Pro Glu Asn Val Ala Ser Lys Ser Thr Ala Leu Ser Ser Pro Lys  
 35 40 45  
 Lys Pro Lys Ala Ala Ser Ser Ser Ser Ser Ser Pro Arg Ala Gln  
 50 55 60  
 Pro Pro Ala Cys Gln Val Glu Lys Cys Ala Ala Asp Leu Ala Asp Ala  
 65 70 75 80  
 Lys Glu Tyr Tyr Arg Arg His Arg Val Cys Glu Gln His Ser Lys Ala  
 85 90 95  
 Arg Ile Val Leu Val Leu Gly Leu Gln Gln Arg Phe Cys Gln Gln Cys  
 100 105 110  
 Ser Arg Phe His Val  
 115

<210> 1930  
 <211> 143  
 <212> PRT  
 <213> Pinus radiata

<400> 1930  
 Met Ser Ser Thr Ser Ser Tyr Ser Ser Pro Ser Pro Asp Thr Pro Ser  
 1 5 10 15  
 Gln Ser Ala Ala Val Arg Pro Thr Ser Thr Arg Asp Asp Ser Ser Val  
 20 25 30  
 Met Glu Pro Pro Arg Lys Arg Ala Arg Ala Asp Leu Asn Ala Glu Gln  
 35 40 45  
 Arg Arg Glu Ala Arg Ala His Arg Asn Arg Ile Ala Ala Gln Asn Ser  
 50 55 60  
 Arg Asp Lys Arg Lys Ala Gln Phe Thr Tyr Met Glu Gln Arg Val Ala  
 65 70 75 80  
 Gln Leu Glu Glu Glu Asn Gln Arg Leu Arg Ala Gly Met Gly Leu Ser

				85						90					95				
Gln	Phe	Thr	Pro	Ala	Asp	Asn	Asp	Lys	Phe	Val	Ser	Leu	Glu	Arg	Glu				
			100					105					110						
Ser	Val	Gln	Ala	Arg	Glu	Asn	Arg	Glu	Leu	Lys	Glu	Arg	Ile	Lys	Ser				
		115					120					125							
Leu	Glu	Ser	Gly	Trp	Ser	Ala	Val	Ile	Lys	Ala	Leu	Gln	Ala	Ser					
	130					135					140								

<210> 1931  
 <211> 199  
 <212> DNA  
 <213> Pinus radiata

<400> 1931  
 aacaactgaa caataaaaaat cacaagcact gaatctaacc atctctccac aaagcagaat 60  
 catttttttag cagtgcagaa ttaaatcaaa acacaattgt tcggctgtaa agcaaagatg 120  
 aagcatcacg tagtgcacaa ttgctgtagc aagaaagctg taaagagagg cttctggtcg 180  
 cccgaggaag atttgaagc 199

<210> 1932  
 <211> 380  
 <212> DNA  
 <213> Eucalyptus grandis

<400> 1932  
 gggatctcta ggaacttcgt gaaaacgcgg acgccgacac aggtggcgag ccacgcccag 60  
 aagtacttcc tccggcggac caaccagaac cggcgacgcc ggcggtccag cctcttcgac 120  
 ataaccaccg actcgtactt tggggtttca agctctacaa tggaggaggg tcatcatcaa 180  
 gcgcaccaag taccagctt cctctttcc ttgcctccgg cggtttcacc gggaaaccggc 240  
 gagaaactgc tggaaagtct gcgactaaga aaagagggct gccagtcgaa acccaccgcc 300  
 tcgaagccca tccgcccggc cccgatcctt cccatccctc cgtcctcgaa aatggcggct 360  
 ctcgacctca acaaggcgac 380

<210> 1933  
 <211> 630  
 <212> DNA  
 <213> Eucalyptus grandis

<400> 1933  
 ggaccggcga gtttctccgg ggaagaccgg cggagcggcg gcggcggcgg cggcggcggg 60  
 gggaaaagct cccgcctttc gtcgtttcgc ggtccgtgga ataggcgaca agtcggattg 120  
 cgttgctgtg cgcgcctcgc ttcgtatata agggcgggctt gctgctgctg ctactggtct 180  
 gaggagtcaa ccgagctcga gcgttacgcg ctccccgaag gttccgccgg ctagggtttt 240  
 tttatatattc cctctgtttt tcctccggtc ggccacgggtc gttgcttcgc tttaaaagga 300  
 ttggcgcgat tgagctgggc ggagcttgag gggtcgggcg gtggcggcgg aagtggagtg 360  
 gagcgggggg tgggtggtgct cgacatggta atcgggttct gacgatgccg agctttgttc 420  
 cagcgacacc ggctccaat tccattgggt cggagggaaa cgttggtccag tctaatacaa 480  
 atacagattt tgggtcgttt gagcattcac ttggattccg catagaggat gccatcaacc 540  
 ttagcagaac agatcctgtc tttaatcaga taaaaccaa cggtcgagct cttggaactg 600  
 acattcaagc tcgtgctttt aataagtctg 630

<210> 1934  
 <211> 524  
 <212> DNA  
 <213> Eucalyptus grandis

<400> 1934  
 ctttactatt ctaagtcctc tacttctggt ttggaatcac taatttcttg gtctcacttt 60  
 cgcttggect atcacccgag agttctctgc agaaacttca cagccgtcct ctgctctttc 120  
 accaaccatt gtatgcctgg ttttactagg gctaggaaga tgagcatgtc cggagaagaa 180  
 gagggtgacc tgcgaagggg gccatggact cgcgaggaag acaatttgct cattcactcg 240

atcacatgcc	acggcgaggg	acgctggaat	atgttggcga	agagcgcagg	attgaagaga	300
actggcaaaa	gctgcagatt	aaggtggctg	aattacctga	gacccgacat	caagcgcggg	360
aatctcacc	cgcaagaaca	gctcatgatc	cttgaacttc	accacaaatg	gggcaacagg	420
tggtcgaaaa	tcgcgcagta	tctcccagga	aggacagata	acgagatcaa	gaactactgg	480
aggacgcggg	tgcagaagca	agcgcgccag	ctcaacatcg	aatc		524

&lt;210&gt; 1935

&lt;211&gt; 440

&lt;212&gt; DNA

&lt;213&gt; Eucalyptus grandis

&lt;400&gt; 1935

gtgctgtgac	aaggtgggat	tgaagaaagg	gccgtggaca	cctgaagaag	accagaagct	60
cctcgcttac	atcgaagaga	acggccatgg	aagctggcgt	gctttgcctt	ccaaagctgg	120
tcttcagaga	tcggggaaaa	gctgtaggct	aagatggact	aattatctta	gacctgacat	180
caagagaggg	aagttcagct	tacaagagga	acagaccata	attcaactcc	atgcccttct	240
tggaataagg	tggtcggcca	tagcaactca	tttaccgaag	cgaacagaca	acgagatcaa	300
gaactactgg	aatacgcata	tgaagaagag	attggcgaaa	atgggaattg	acccggtgac	360
ccataagcct	aaaaatgacg	ccctagtctc	tagtgacggt	caatccaaga	gcgcggctaa	420
gctcagtcac	ctggctcagt					440

&lt;210&gt; 1936

&lt;211&gt; 299

&lt;212&gt; DNA

&lt;213&gt; Eucalyptus grandis

&lt;400&gt; 1936

cggacccttc	cgaaaaatgc	agggctcagg	agatgcggaa	agagctgtcg	cctgcggtgg	60
acgaactacc	tcgcggccga	tatcaagaga	gggaggttca	cgttcgagga	agaggagacc	120
atcatccagt	tgcatgggtg	tttggggaac	aagtggctcg	ctatcgcggc	tcaattgccc	180
gggaggaccg	acaacgagat	caagaactac	tggaacaccc	acatcaagaa	aaggctactt	240
aaaatgggga	tcgacccggt	gacacactcc	ccacgcctcg	atcttctaga	tctgtcctc	299

&lt;210&gt; 1937

&lt;211&gt; 377

&lt;212&gt; DNA

&lt;213&gt; Eucalyptus grandis

&lt;400&gt; 1937

ggcccctctc	tctttctctc	tctctgtgtc	tgtctttctt	gtggatccac	caggctcgtc	60
tttaagaata	tacagcagcg	agcaggcaag	acaacgcccc	atctctcttc	tctctctctc	120
tctctctgtg	gctctgtctt	tcttttgttt	cttgccgttt	tggggtgtgt	gtgttgggtt	180
gtgtgaattg	gagcgaggat	ggggaggggg	agactgcagc	tgaagaggat	agagaacaag	240
atcaaccggc	aagtcacctt	ctccaagagg	agggcggggtc	tgctcaagaa	ggcccacgag	300
atctccgtac	tctgcgacgc	cgaggctcgc	ctcatcatct	tctccgccaa	gggcaagctc	360
ttcgagtact	ccaccga					377

&lt;210&gt; 1938

&lt;211&gt; 278

&lt;212&gt; DNA

&lt;213&gt; Eucalyptus grandis

&lt;400&gt; 1938

tgtagcaag	catgtatgta	ctaactagta	gtttttgtaa	agcatgatgt	cgaaaccttg	60
agtagcaagg	tgaagatggc	tgaagagacg	gttaaaagag	taaccggact	gaacccaatg	120
ctgcatgtga	tgtccgacat	gtcttctgtg	ggtgtgccac	catttgatgg	tagtccttct	180
gatacatcag	cggatgctgc	agttcctgtg	cgagatgacc	caaagcacca	attctatcaa	240
accaattcta	gtaaccccg	atcatctgct	gacgatata			278

&lt;210&gt; 1939

&lt;211&gt; 342

&lt;212&gt; DNA

&lt;213&gt; Eucalyptus grandis

&lt;400&gt; 1939

acagggttgct	caattaagag	ttgagaattc	tactttactg	aaacgtctct	cggacataag	60
ccagaagtac	aatgtagcag	ctggttgacaa	cagagttttg	gaagctgatg	tcgaaacctt	120
gagagcagag	gtgaagatgg	ctgaagagac	ggttaaaaga	gtaaccggac	tgaacccaat	180
gctgcatgtg	atgtccgaca	tgtcttctgt	gggtgtgcca	ccatttgatg	gtagtccttc	240
tgatacatca	gcggatgctg	cagttcctgt	gcgagatgac	ccaaagcacc	aattctatca	300
aaccaattct	atgtaacccc	gcattcatctg	ctgacgatat	ga		342

&lt;210&gt; 1940

&lt;211&gt; 376

&lt;212&gt; DNA

&lt;213&gt; Eucalyptus grandis

&lt;400&gt; 1940

gctgtttttca	catcttttttg	aacacgcccc	taaagatccg	ccctcagagc	cgcctctgtc	60
cgggtggtgc	tgacattcca	cctagaaatt	cccgaccaag	ttcccccttt	ctaagccaga	120
ttgggaaagg	ttcatatttg	tccaacagta	gtagtggatt	taaatgggga	ggcactcttg	180
ctgctacaag	cagaagctga	ggaaaggcct	ctggtcacct	gaagaagacg	agaagctcct	240
caggtacatc	acgcagtatg	gccatgggtg	ctggagctct	gttcctaagc	ttgcaggtct	300
gcagaggtgt	gggaagagct	gcagattgag	gtggattaac	tacctgaggg	ctgatttgaa	360
gaggggcaca	ttctct					376

&lt;210&gt; 1941

&lt;211&gt; 169

&lt;212&gt; DNA

&lt;213&gt; Eucalyptus grandis

&lt;400&gt; 1941

aggaattgca	gcacctggaa	cagcaattga	gtggggcctt	atcatctgtc	aaggagaaga	60
aggagcaatg	gcttctggag	cagctggagc	gttcaagatt	acaggagcag	agggctatgc	120
tggagaatga	aactctgcgc	agacaggtcg	acgagcttag	aggtttcct		169

&lt;210&gt; 1942

&lt;211&gt; 188

&lt;212&gt; DNA

&lt;213&gt; Eucalyptus grandis

&lt;400&gt; 1942

cgagatctcc	gtcctctgcg	acgccgacgt	cgccctcacc	gtcttctcca	ccaagggcaa	60
gctcttcgag	tacgccaccg	actggtgcat	ggagaggatc	ctcgagcggt	atgagagata	120
ttcatatgca	gagagccagg	ttctcacaaa	caatgccgaa	accaatggga	actggacttt	180
ggaacatg						188

&lt;210&gt; 1943

&lt;211&gt; 321

&lt;212&gt; DNA

&lt;213&gt; Eucalyptus grandis

&lt;400&gt; 1943

ctctttcctc	ctcaatcgga	agggttcttc	aacccaatgg	acggcaacct	ctcattgcaa	60
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gctggattca	ttccgggatg	gatgctttga	acttactaca	tcgacttgga	gtgtgaatcg	180
agctggtgaa	atttgtgcgt	gtgtcccttg	taaaattgcg	atccgcaaga	caataagtac	240
ataatatatt	ggagctgtga	tgacataaaa	agaggaaggc	caccctttcc	tctctcatga	300
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&lt;210&gt; 1944

&lt;211&gt; 905

<212> DNA  
<213> Eucalyptus grandis

<400> 1944  
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acaagaagct tcagctggag gtcaggagga ggttcgggga aggactgaat ggtatgagct 240  
tatcggaatt gtgcggtctt gagcaagata tggacaacgc cgttagcctg atccgtgaac 300  
ggaagtacaa gacgctcggc aatcaaactc acaccgccag gaagaagaaa aagaatgctg 360  
aggaataaaa caaaagtctc ctgcaagact ggaccaatct gatcaagcat ctgagggagg 420  
acgacccgca cttcggaatg gtcgacaacg gcagggatta cgaggctgtg atcgggtata 480  
cagacgccgc cgccgccgct cgcttgtaca ccctgcgcct gcaaccggac cagcccaatc 540  
ttactagcgg aggaggatcg gagatcacga cctacccttt gctcgagtga gacgaaggcg 600  
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gcagctaaat ttgttcttat cagaagctgt tcctattatg gaccgagggc gatttcctct 780  
agggcatcat gtgttttaag acaagtctat atataagact actttaaaac aatcgaatga 840  
gttggtgcaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaact 900  
tcaag 905

<210> 1945  
<211> 337  
<212> DNA  
<213> Eucalyptus grandis

<400> 1945  
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acttagggga gcatctaaaa tgcaggaatg ggctcatcaa gaaggcctac gagctctccg 180  
tcctctgcga catcgacatc gccctcatca tgttctcccc ctccgaccgc gtgagccact 240  
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aacggacact cctagatgtc caggatcggc gcacacg 337

<210> 1946  
<211> 301  
<212> DNA  
<213> Eucalyptus grandis

<400> 1946  
caaaccttcc cagggtttcc atttccattt ccttcataga atgctccgtt cctttcttat 60  
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aagactggta agagagagag agatagagag tttattagtg ggtgagggtg ttaaaaaatg 180  
ggaagaggga ggggttcagct gaagaggata gagaacaaaa ttaacaggca agtgaccttt 240  
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g 301

<210> 1947  
<211> 354  
<212> DNA  
<213> Eucalyptus grandis

<400> 1947  
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gcaaaatacc attaacggat cttgcagcat ggaaagcatt ttagagagggt acgagagata 180  
cacttatgcg gagcgacagc aagtggccac tgattcccct caagtgcagg gaagttggtc 240  
gcttgaatat cccaagctcg tggctaggat cgaagtcttg cagaggaaca taagaaactt 300  
gagcggagaa gagcttgatc ccttgagtct gagagagctg cagtatttgg agca 354

<210> 1948

<211> 456  
 <212> DNA  
 <213> Eucalyptus grandis

<400> 1948  
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 gaaaggggtcc atggacagaa caagaagatt tccaactggt gtgctttgtt ggactttttg 120  
 gagatcgccg atgggatttt atagcgaagg tatcagggtt gaagggtggcg ggagaaaata 180  
 ataggtatgt tcgtttttaa gcctgggggt tttttggaag gagctacttc taaccgcca 240  
 gctttattcc aggattgaat agaacaggaa aaagctgcag actacgctgg gttaactacc 300  
 tgcacctcgg cctaaaacga gggaagatga cacctcaaga agagagactg gtgctcgaac 360  
 ttcattccaa atgggggaaat agatgggtcaa gaattgctcg caagctacca gggcgaacgg 420  
 acaatgagat aaagaactat tggaggactc atatga 456

<210> 1949  
 <211> 382  
 <212> DNA  
 <213> Eucalyptus grandis

<400> 1949  
 attttttcaac tccccccccc caccgccgaat caaatcccat tccctctctc cctccctccc 60  
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 catcaatcaa gctcaagcac catcacctca agaagaaaga aggaaagaaa gagagaagga 180  
 ccggagaccc gacagagggg cgcgcgcgca cgagacatgg gacgatcccc ttgctgcgag 240  
 aaggcgacaca ccaacaaggg cgcggtggacc aaggaagagg accagcgctt catcgactac 300  
 atccgcctcc acggcgaagg ttgctggcgc tccctcccca aatctgccgg gcttctcagg 360  
 tgcggcaaga gctgcaggct ca 382

<210> 1950  
 <211> 371  
 <212> DNA  
 <213> Eucalyptus grandis

<400> 1950  
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 cagaatcgtc gtgcacggtg gaagacgaag cagctagaga aggattatga aactttgcaa 180  
 gcttctttta acaccctgaa gtcagactac gacactctca tcaaggagcg gaatgatctg 240  
 aaagccgagg ttcttaacct cacggacaag ctgcttcaca agggaaatga gaaggagagt 300  
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 tctgaggacg a 371

<210> 1951  
 <211> 356  
 <212> DNA  
 <213> Eucalyptus grandis

<400> 1951  
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 aaactgggtg cttatatcaa gagatatggc atttggaaact ggactcacat ggccgaaccc 180  
 gccggtttag cgagaacagg aaagagttgc cggcttcgat ggatgaacta tctgaggccc 240  
 aacatcaagc atggaaacat caccaagaa gaggaagaaa tcattattaa cttgcaccga 300  
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<210> 1952  
 <211> 475  
 <212> DNA  
 <213> Eucalyptus grandis

<400> 1952

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gacaagggaat	atggcgagag	agaagatcaa	gatcaagaag	atagacaatg	tgacggcgag	180
gcaggtgacg	ttttctaaga	ggagacgagg	gcttttcaag	aaagccggag	agctgtcggg	240
cctgtgcat	gccgaggtcg	ctgtcgtcat	tttctcggct	accggcaagc	tctttgagta	300
ctccagctcc	agcatgaagg	acactcttga	gaggtaacac	ctccaccaca	ataatcttga	360
gaatatggac	caacctttct	tcgagctgca	gctggagcat	agcaataaca	tgagggttaag	420
caagggaagt	gcagaaaaga	gccatcgact	caggcagttg	aggggtgagg	atctt	475

&lt;210&gt; 1953

&lt;211&gt; 541

&lt;212&gt; DNA

&lt;213&gt; Eucalyptus grandis

&lt;400&gt; 1953

atcgcccccg	ttctctccct	ctctctccct	ctcccccta	acgtttctgg	ccctcttctt	60
tgtctggaca	aaaagatggg	aagaaagtgc	tctcgctgtg	ggaacatagg	ccataactca	120
aggacttgca	caactttcat	ggggcgagca	agtgttgtg	ggctcaagct	cttcggtgtt	180
caacttgacc	tatcttcttc	ttctctccct	tcatcatcag	catctagtgg	ttctgtcat	240
ccttattcac	ttgtcataaa	gaagagcctc	agcatggatc	gtctgtcttc	ttcctcggcc	300
tcctcctcgt	ctccatcttc	atccctctcc	tcgccaaagag	ttcttgtctga	tgaacactgc	360
aataagacct	ccctcggata	tctctctgat	ggcctcgccg	ctagatccca	ggagaaaagg	420
aaaggagttc	cgtggacgga	agaagagcat	cggacattct	taatggggct	agagaagatg	480
gggaaaggcg	attggagagg	catctccagg	aactatgtga	ccacgagAAC	cccaaccCAA	540
g						541

&lt;210&gt; 1954

&lt;211&gt; 437

&lt;212&gt; DNA

&lt;213&gt; Eucalyptus grandis

&lt;400&gt; 1954

cgcggttggc	gtcagataga	agagcatgta	ggaacaaaaa	ctgcagttca	gatacgaagt	60
catgccccaa	agttcttctc	taagggtgct	cgcggggtaa	gtggcagcag	cgagggtgtg	120
attaaacca	ttgaaatacc	tcctccacgg	ccaaagcgga	agccaatgca	tccatatcca	180
cgcaaatctg	tcgattcaaa	ggaggtgaaa	ctgtcctatc	aacaagagag	gtctccatct	240
ccaatctctt	cggtagcaga	tgaaaacact	ggatctccta	cttcagtttt	gtctgtcat	300
ggttcagaca	tgctgggac	agcatctttg	catcaacaaa	acagatgctc	ttcaccgact	360
tcatgtacca	ctgatgtacc	ctctattggt	ctagctgtaa	ttgagaagca	acctgaaata	420
ttcaaagaag	aagataa					437

&lt;210&gt; 1955

&lt;211&gt; 470

&lt;212&gt; DNA

&lt;213&gt; Eucalyptus grandis

&lt;400&gt; 1955

attcggtcac	gagttcactt	cgtcgcctgc	ctcgctgtec	tcctgtctct	cctcgcgaaat	60
ctccatcggc	gagaactctg	ataaagcatc	cctcggctat	ctgtcggatg	gcctgtctggg	120
tagatcccaa	gagaagaaga	aaggagttcc	atggacagag	gaggaacaca	gaaccttctt	180
ggtggggctt	gagaagcttg	ggaagggtga	ttggagaggc	atctctagga	gctatgtgac	240
cacaagaaca	ccggcccagg	ttgcaagtca	tgctcagaaa	tatttcctcc	ggcaagtgtg	300
cttcaacaag	aaaaagcggc	gctcgagcct	ctttgacatg	gttgatgtca	aaaccgcggc	360
gggtgatcgt	ttaggcagtt	tgacggccaa	gccgagtgtg	tcagttccta	attgcaaaaat	420
gggaaccttg	atgtctcatt	tgcaagttca	tgatgccaga	accactcagc		470

&lt;210&gt; 1956

&lt;211&gt; 384

&lt;212&gt; DNA

&lt;213&gt; Eucalyptus grandis



<400> 1956  
 ctgaaatttc gtcttcaagc catggaacaa caggcgcaac tacgcatgc cctgaatgaa 60  
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 catccttcaa agtgcattggt ttcacagctt cctgtgagct cccaaatggt ccagctccat 180  
 cagatgcaac agcagcagca gtctcagcaa caaactcaat cacagcagca aaatggtaac 240  
 acaaccacaa agtcagagtc gaatcaatag gacgtgggtg gtccaacaac tccggcgctt 300  
 ggacaaacct cacttgcttc gggtcttcga caccctgcag tagttctcta gtgcatccat 360  
 tcattcatta gtttttgc atgc 384

<210> 1957  
 <211> 388  
 <212> DNA  
 <213> Eucalyptus grandis

<400> 1957  
 gtttcctctt caggagaaag caaggagctg tagaggaatt gaaaatgggt caagaagtcc 60  
 gaaaggggtcc atggacagaa caagaagatt tccaactggt gtgctttgtt ggactttttg 120  
 gagatcgccg atgggatttt atagcgaagg tatcaggttt gaaggtggcg ggagaaaata 180  
 ataggattga atagaacagg aaaaagctgc agactacgct gggttaacta cctgcatcct 240  
 ggcctaaaac gaggaagat gacacctcaa gaagagagac tgggtgctcga acttcattcc 300  
 aaatggggaa atagatggtc gagaattgct cgcaagctac cagggcgaac ggacaatgag 360  
 ataaagaact attggaggac tcatatga 388

<210> 1958  
 <211> 455  
 <212> DNA  
 <213> Eucalyptus grandis

<400> 1958  
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 attgtctatc gagcaagttc tgtacttgga gaagagcttt gagactgata acaagcttga 180  
 accagataaa aaagttcagc ttgccaaaga actcgggttg caacctcgtc aagttgctat 240  
 ttggttccaa aatcgaaggg caagatggaa aactaagcaa atggagaagg atttcgataa 300  
 attgcaagct agttttaact gtttgaagtc tgattatgaa agtcttctca atgagaagga 360  
 gaagctcaaa gctgaggtta ttcatttgac acaccagcta gagcaaaagga gcaacgggaat 420  
 tctgaaccat tcgacatatt tgaacaattg cacac 455

<210> 1959  
 <211> 965  
 <212> DNA  
 <213> Eucalyptus grandis

<400> 1959  
 aagagaaaaag atacaatccg ccgtggaccc aagaagggtca aagcccgtct tctgcacgat 60  
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 tgatttttcgc caacccccca atatttatct tttctttctt tctttttttt cgttctcttc 180  
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 gcgtagcgtg tactatctcg tctcaggtgg tgtttcgtt ttatggggat gtccttcggc 300  
 gggggcgctt cgaagattct tgtagctccg tagcttgctc tgcgggattt ggttggggccg 360  
 atcgtcaggt ttcttccagt taaagttgct atttttaagg ggagcgaggg cgtttgagct 420  
 ggtaaagttc gaagcttttt gagttcggcc gccaggggtg tgtcctagag ataactggag 480  
 gcgaaagggg gcgttccggg ccggtcagca tccgctgact caggagatgg ttggggggtt 540  
 ttggtggcgg cggtgatgat gattcatggg tagtaggact agagttggcg gtggtggaga 600  
 tgatggcaga gttgtgaacg gcatgccgag ctctgcctcc caattaccca cttcgaattc 660  
 catgggatca gaaggaaact ccattcgctt ttctcgaatt acagactttg gaacacttga 720  
 gcagttctct ggataccgca tagaagatgc agttgacctc agcagaaatc ctgtcttcaa 780  
 tcagatgaaa tcaagtggcc aggtctcttg ggctgatgtc caatttggct ctttgaataa 840  
 gtccctttca tctcagaca gaaatcttct tgtgaatatt gtgggggtct agactctatc 900  
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 gggggg 965

<210> 1960  
 <211> 599  
 <212> DNA  
 <213> Eucalyptus grandis

<400> 1960  
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 cggctccctcg ccgtcgccgg tgcgagagaa tgcttcccc acgcgcgcgc acccccgacg 180  
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 tgcgggtggg cgtggactcg atgaggaagt gcgtgagcct gaacaacctg tctcagtacc 300  
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 aggccgccaa aggtacgca tcggccgacg acgccgcgca caaccgcggc ggtggccgcg 420  
 agcgcaagag aggagttcct tggacagagg aggagcacag gctgttcttg ttgggattac 480  
 agaaggtggg gaaaggagat tggagagcga tatccaggaa ctttgtgaag accgcacgcg 540  
 ccactcaggt cgcgagccat gccagaaat atttcttgcg ccgaagcaac ctcaatcgc 599

<210> 1961  
 <211> 377  
 <212> DNA  
 <213> Eucalyptus grandis

<400> 1961  
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 tgctgcagac gccaaagaagg ccatgtctgc tgcgaagctt gctgagcttg cactgattga 180  
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 tagtgaattg aaactgc 377

<210> 1962  
 <211> 317  
 <212> DNA  
 <213> Eucalyptus grandis

<400> 1962  
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 cttcttctga tgacacttac gtggactcta gagaagagac aagtgaagaa tcaaagctag 180  
 atttctctga agatgaggag acgcttgtaa ttagaatgta caacctgggt ggagaaaggt 240  
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 attccagata ttcaaca 317

<210> 1963  
 <211> 471  
 <212> DNA  
 <213> Eucalyptus grandis

<400> 1963  
 ctctctctc ataatgcata attcacaggc gcggcacaag gcacgaaaag ataaaaaaaa 60  
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 aagaaacgct gattccgagt tcttccgagg ctcttgagtc cgcctgggtt cctacttctt 180  
 cgaccgctca tcatggttca aaatcagtgg tcaattttga ggacgtttgt ggaggaggag 240  
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 aagaggacta cggcgacggg aactttcagc ctctggtaa gaagcggcgg ctatcggccg 360  
 accaagtcca tttcctcgag aggcactttg aggtcgagaa caagctcgag cccgagagga 420  
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<210> 1964

<211> 372  
 <212> DNA  
 <213> Eucalyptus grandis

<400> 1964  
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 tgacttcaag aaaggggggtt ggtcacccga ggaagatgtg cttttatgtg aggctcagaa 240  
 gattttcggc aacagatgga cagaaatagc aaagggtggtt tcaggcagga ctgacaatgc 300  
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 agagaataca ct 372

<210> 1965  
 <211> 424  
 <212> DNA  
 <213> Eucalyptus grandis

<400> 1965  
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 gtcaacttca tactcaccca cggccaatgc tgctggcggg ccgtcccca gctcgtctggg 180  
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 ggcaataggt ggtccaaaat agcagctaga ctaccgggaa gaacggacaa cgagatcaaa 360  
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 caca 424

<210> 1966  
 <211> 427  
 <212> DNA  
 <213> Eucalyptus grandis

<400> 1966  
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 atagctcgtg actttgtgac tacaaggact cctactcaag tggcaagcca tgcccagaag 180  
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 gctccagata tggttttgtct tctctatgat gttgcttctg cacattcatt gcactccggtt 300  
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 tcaaatg 427

<210> 1967  
 <211> 373  
 <212> DNA  
 <213> Eucalyptus grandis

<400> 1967  
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 gtgacaagca agacacaaac aaaggagcat ggtcgaagca agaagaccag aagctcatcg 120  
 actacattcg caagcacggc gaaggatggt ggcgaaactc tcctaaggct gccggtctcc 180  
 tccgttgccg gaagagttgt aggctaagat ggataaacta tttgcggcct gacctcaaaa 240  
 gaggcaactt tgctgaggat gaagaggatc ttatcatcaa gcttcatgct ctcttaggca 300  
 accgatggtc gctaattgct gggagattgc ccggacggac agacaatgaa gtgaagaact 360  
 attggaactc aca 373

<210> 1968  
 <211> 197  
 <212> DNA  
 <213> Eucalyptus grandis

&lt;400&gt; 1968

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ggataaacta	cctgaggcct	gacctcaaga	gggggatgtt	ctctcaagaa	gaggaggatc	180
tcattgtcag	tctccac					197

&lt;210&gt; 1969

&lt;211&gt; 365

&lt;212&gt; DNA

&lt;213&gt; Pinus radiata

&lt;400&gt; 1969

gcaaaatctt	atttgggttc	ccttacagaa	actatacagt	ccctgaatgc	tgagcttgaa	60
agaactagat	cggagtgtgt	tgaagcaaa	aagagagagg	aagagattat	ttcaaaagaa	120
gctgaaagag	tagagaagaa	taagagagaa	gtggaaaatc	tggaactcaa	tcttctgcaa	180
actactgcag	aagctgggag	agctaaactg	gaactagaga	ctgcttatga	agaggtgcag	240
agcgcaagac	ttgaaactgc	gcaattgagg	gctgctttgg	aagccacaga	gggaaaattt	300
gaagcaatgc	tgagtgcagc	taggttggag	gcagagcatg	tcaaaggagc	tattgagaag	360
tataa						365

&lt;210&gt; 1970

&lt;211&gt; 260

&lt;212&gt; DNA

&lt;213&gt; Pinus radiata

&lt;400&gt; 1970

gaaatattgg	tgactcaaat	agagcaactt	caaagaaagg	aacggatgtt	tagcgaagag	60
aataattttt	tccgaaagcg	gattgtcgat	ccccattccg	ttttgacaac	tcttgcaagt	120
ggatctggaa	gcctccaaag	aagtgaagtc	gagactcaac	tggttatgag	accgccagtc	180
tcaaattgctg	attttctttt	taatagtctt	cattgataat	cactgtattc	atatctttgt	240
tattaattta	ttatgaaatg					260

&lt;210&gt; 1971

&lt;211&gt; 332

&lt;212&gt; DNA

&lt;213&gt; Pinus radiata

&lt;400&gt; 1971

tctctctggg	gtggggggca	ctcaaaatgg	ggaagacgaa	gatggagatt	aaacgcattc	60
aaaaccctag	ccgccgccag	gttactttct	cgaaacgcaa	gaacggattg	ctaaaaaagg	120
cattcgagct	ttctgttctc	tgcgatgctg	aagtcgccct	gatcattttc	tcggaactg	180
gcaagatctg	cgagtttgca	agccacgacg	acatggcaac	aatactggaa	aaatatcgaa	240
tatacacgga	aacacatgga	aacatggagt	cctcgtcggg	ccaaagcgtg	aagattgggtg	300
aatcacaact	caaagcgttg	cgtgagaaga	tg			332

&lt;210&gt; 1972

&lt;211&gt; 413

&lt;212&gt; DNA

&lt;213&gt; Pinus radiata

&lt;400&gt; 1972

cttcgaggtg	ctaattggctg	cacaataacct	tcaattggat	tgacaagcat	agaacgcgtg	60
gaagtccaga	ctcaactggg	catgagacct	ccacatgcca	cagagatgga	cgacaacttt	120
atggatgttg	acaacgtgcc	actatctgga	tgatgttttt	ctgtttctgt	tacataatat	180
ggccactgat	gacaccatac	tttatttttg	tatttgcttt	aaaaatgact	ctttctttca	240
ctgacttttg	atggactgta	tgatagttga	tttttggtcc	tcatacttta	gcaaatgggt	300
atgggtacct	gttttggtcc	gaggccttgg	aggatctact	ctctatatgt	tactgtttta	360
ctttttacat	ttgtgctcac	tgactcatat	gatggacttg	cccacatatg	atg	413

&lt;210&gt; 1973

<211> 521  
 <212> DNA  
 <213> Pinus radiata

<400> 1973  
 agaagatggg agcttggtga tctgtgaaag atctctctct gcggtcgaag gtatgcctat 60  
 ggtatcacag tctcaaagct ttgtgcatgg tgaactctta tctagtgggt atttgatccg 120  
 accctgtgaa ggcagaggag cattagtcac catggttgat cacaggaact tagaggcttc 180  
 aagtgtccct gaagcacttc gtcccttata tgagtcacat acattctttg cacagaagat 240  
 gacagttgag gcttcttata atcttcaagg taaagttcaa cgggaaatga tttccttata 300  
 aaaaaaactc caacagccat gtaatgtacg gtcatacagt caacggcttt gcagaggctt 360  
 taatgaggga gtcaacacat tacctgatga tggctggatg tcattgtcca aagatgggct 420  
 ggggatgtc actatgttg taaagcttt gtcaaattgc cgaaaccaa tgatcatcgtc 480  
 aaatagccta tgttcaacag acatgggcat cttgagtga a 521

<210> 1974  
 <211> 461  
 <212> DNA  
 <213> Pinus radiata

<400> 1974  
 gaaaaatgaa gccttcgagc tcgtttaagg catatgaatg gcatgacat caattcggtg 60  
 aagcttcccc aactcttcca tctgaacag cagcttgaaa cggccgcaac ccaagttcga 120  
 agaagaaaagg atcaagtttt agacaacgaa aaaatcaagc gaaggaacaa gatgcgccgt 180  
 aaggaagacg agaacatcat tcttcacgaa atgcttgacc agcaccatgg acaaatggag 240  
 gaggataacg ctcagattaa tttcctatgt tgccaacat taaatagatc ggatactact 300  
 ttccctgcat cactactccg cctgcaacca aatcagccaa atttgacagga tattggatat 360  
 taattactga acggaccatc tgtgtgcatc ataatgagaa ggtcatggac ttctcagtaa 420  
 cagtcaatta tgaaaattcg aagtttgtga ggaaaaaaaa a 461

<210> 1975  
 <211> 499  
 <212> DNA  
 <213> Pinus radiata

<400> 1975  
 tgagcccca ggtggagcac cgacctttca gccacatga agacgccacc atcatacaag 60  
 cccatgcgcg gcatggcaac aagtgggcta cgattgccc cctcctacc ggcgcaccg 120  
 acaacgctat caagaaccac tggaaactga ctctgcgacg tcgctatcat ggcgagaaag 180  
 accagagcaa cgggctagct gtgaacttgg agtcggcagc tgaggacaaa gaaacgatga 240  
 ctccgatgac acctgtcaca gccacggcaa cggcaacggc aacggcaatg ccagtggctt 300  
 tagtgttccc aacggctgca gacaacgtca ggaagcggag caacagtagc tgcagcgcta 360  
 atgacaatcc aggagatgcc gaggtcgaat cctgtaggct taagaggctc aatttttctg 420  
 aatccccatc tagttctgaa aatattaata ataataacaa taatgaagaa gctgttagtg 480  
 gccattgcaa ttcggccgc 499

<210> 1976  
 <211> 419  
 <212> DNA  
 <213> Pinus radiata

<400> 1976  
 ctcagagctc gacaaaacct acatacatc gtctgtcatc cctcccagaa atacctagtg 60  
 agggcgatcg aggtcgaaag gggcatttta cgccattgaa gcggtgtgca taggggtcaac 120  
 tctgagaact gattgtgtct tccttcggag ggagagggtt agcgaggctc agaaagagag 180  
 agaaagagaa agtagtccta agggactgtt taaaatgggg cgaggctccag tccagctgag 240  
 aaggatagaa aacaaaataa atcgtcaagt aacgttttctg aagagacgga atgggctgat 300  
 aaagaaggcg tcagagctgt caatcctgtg tgatgcggaa gtggccttaa ttgtcttctc 360  
 caacaaaggc aaactctatg agttctccag ttccagtatg accaagattt tggaaagat 419

<210> 1977

<211> 459  
 <212> DNA  
 <213> Pinus radiata

<400> 1977  
 gcaagctggc ctccagcggt gcggaagag ttgcaggctt cgggtggatca actacttgag 60  
 accagatctg aagcgaggca cattctctcc gcaggaagaa aatctcattg ttgaactgca 120  
 ttcatgcctc gggaacagggt ggtctcaaat agcaacacac ctgcccggaa gaactgataa 180  
 cgagatcaag aacctctgga actcgtgcat taaaaagaag cttaggcaac gaggcataga 240  
 tctaacacg cacaggcctc tcagcgagggt gaatgccgag gcaggggatt ctaagaacga 300  
 taacagcaat aaagaagtcg aaactcaggc agccatggac gaatctcatg tttctgcagg 360  
 gaacgaattc aagcatctga atgcaattcc tagggctgat acggccaatc cttaaattctt 420  
 tcatgttccc gttgaggaca acactttgat tgctagcga 459

<210> 1978  
 <211> 331  
 <212> DNA  
 <213> Pinus radiata

<400> 1978  
 ggagagtgc ccaccgagat ccacgcagtc gaagagaaag agaaatctgc aggaggagtt 60  
 gaaaatgagg tgcacacgat ggcaaggctt cccattttcc tccaaaccaa aagttaaaaa 120  
 gggctctctg tcgacctgagg aagatgagaa actcatcaat tatatgatga agaacggcct 180  
 tctcggctgc tccctggagct atgtggccaa gcagattgggt ctgcagagat gcggaaaagag 240  
 ttgcagactg agatggacta actacttacg tccctggcctt aagcgggggtg caatttcgcc 300  
 tgaggaggag caattgatca tacacttaca g 331

<210> 1979  
 <211> 375  
 <212> DNA  
 <213> Pinus radiata

<400> 1979  
 gttctatcaa acttcttata caccataccc atttccatta gacggctgaa ttctcagatc 60  
 caatttggtc cagccctcta gcgacagaag aagatgggaa gagcaccctg ttgtgacaag 120  
 gcaaatgtca aaaaaggacc ttggtcacca gaagaagaca caaaactcaa ggcgtttatt 180  
 gaacagcatg gcaactgggtg caattggatt gctcttccac agaaagctgg tctgaaaagg 240  
 tgtggaaaga gctgcaggct tagatggttg aactatattga ggccagatat aaggcatggg 300  
 ggtttctcag aagatgaaga taacatcatt tgtagcctct atgcaagcat tgggaagcatg 360  
 gtgtctataa ttgca 375

<210> 1980  
 <211> 749  
 <212> DNA  
 <213> Pinus radiata

<400> 1980  
 gagcttcatc cgccattatt gggtttcaat tcgatcttga tttgccagag acgatgtgaa 60  
 ttaccattct gtgggcaaaa gcgagagagg aggagaatgg tgaggggaaa gaccagatg 120  
 aaaaggatcg agaacgacac gagcaggcag gttacgtttt ctaagcgag gaatgggtta 180  
 ctgaagaaaag cttatgagct ctctgtgctc tcgcatgccg aagtgggact tataattttc 240  
 tcaccaagag ggaaactata tgaattcgcc agtcccagca tggaggagat tttggaaaag 300  
 tataaaaaaac gttcgaagga aaatggcatg gctcagacaa cgaaagagca agatactcag 360  
 tattccaaac attccaaaca aaagctcgca aatatggaag aacagattag gattcttgaa 420  
 tcaacccaaa gaaagatgtt gggggaaggg ttggaatcgt gttcaatggc agaattaaat 480  
 aagttagaga gccaagctga acgaggattg agccatatac gggctcgaaa gacggaaata 540  
 ttggttgacc aaatagaatg tcttaaaaagg aaggaacgtc tcttaagcga ggagaacgcc 600  
 ttactcagta gaaagtgggt tgatcgtaa tccgtggacg gttccgggtc aacatcatct 660  
 tcaattggat tgggaagcat cgagcagatc gaagttgaga cacaactggt tataagaccg 720  
 ccaaatgcac aggatcactg ttctgtaaa 749

<210> 1981  
 <211> 339  
 <212> DNA  
 <213> Pinus radiata

<400> 1981  
 cttggctggg gaagacaacc cgctgcatta cggacattta gccagagatt gtgcaagggt 60  
 ttcaatgagg cagttaatgg cttcacagat gatggatggg ctttgatggg taacgacgga 120  
 atggaggatg taactattct cgtcaattca tctccaagca aactgttcgg tcaacagttt 180  
 gcttcttccg atgggcttcc tgctcttggg gggggcatcc tatgtgcca ggcttctatg 240  
 ctattacaga atgttctctc agcattgctt gttcgtttct tgcgagaaca tcgatcagaa 300  
 tgggcagata gtaatatga tgcctattca gcagcctct 339

<210> 1982  
 <211> 373  
 <212> DNA  
 <213> Pinus radiata

<400> 1982  
 ggattccgac ccttccggct aaagctgctt catttctgtg tgtattgaag atggggagat 60  
 ctccctgctg tgaaaaagct catacaaaaca aaggggctg gaccaaagaa gaggacgatc 120  
 gcctcatcgc ccacattcga actcacggcg aaggttgctg gcgctcgctt cccaaggccg 180  
 cagggtgat gcgctgcggg aagagctgca ggctccgatg gataaactac ctgcgtcctg 240  
 atctgaagcg tggaaaacttc tcagaagaag aagacgaact catcatcaaa ctccactccc 300  
 tactcgga caagtggctt cttattgcag gcagattgcc cgggcggacg gacaacgaga 360  
 taaagaacta ctg 373

<210> 1983  
 <211> 404  
 <212> DNA  
 <213> Pinus radiata

<400> 1983  
 aggcaataag tggttattatt gagaacttga ctgtggctga gattttcagg gatggaccgt 60  
 tcaaaactctg cgactggaga agaagatgta ctgtcaagat gcagggaaag aaaacgtttc 120  
 atgaagctgg caattgagaa caggtataaa ctagcaacag ctcatgtggc ttacatggat 180  
 tctcttaggc gtatgggcac cggctctcgg ctttttgctg aaggcgaaac gatgtcggag 240  
 tcttcttatt ccacatcacc catagggact tctgaacttg ctgttgctt gcctgagaaa 300  
 tccgtatccc catctccatt tccatcctca tccccttcac tttctcaacc tcaaagtccc 360  
 cgttcagaga gagcagaatc tcgatctcca ctgcacagct tctc 404

<210> 1984  
 <211> 332  
 <212> DNA  
 <213> Pinus radiata

<400> 1984  
 cggacggctt ggttcaaaac tctcgtgaaa gaaaaaaagg cgttccttgg acggaagaag 60  
 aacataaaat gtttttatta gggcttcaca aattgggaaa aggcgactgg agaggtattt 120  
 ccagaaaactt tgtcacttcc agaactccta ctcaagttgc tagccacgca caaaaatatt 180  
 ttcttaggca gagtaatttg aacaaaagga aacgaaggct gagcctgttc gatatatcca 240  
 ctgattcgat ggaagattgc tatcaaggaa tcccgagct gtcaccggtg atgcacgatc 300  
 tcagcctggg ccagaattca tctctgacct ct 332

<210> 1985  
 <211> 526  
 <212> DNA  
 <213> Pinus radiata

<400> 1985  
 ctccctctccc gtctccaaac ccaagctaag gaaaggcctc tggctgcctg aggaggatga 60

taaaactcatc	aactacatga	tgaaaaacgg	ccagggttgc	tgagagcgatg	tcgccaaagca	120
agctgggtctg	cagagatgcg	gaaaaagctg	taggctgagg	tgatttaact	atttaaggcc	180
cgacctcaaa	cgcggtgcat	tttcacccca	ggaagaacaa	ttgatcatac	acttgcattc	240
cattctcggc	aacagggtgg	ctcagattgc	agcccgtttg	cccggacgta	cggacaacga	300
gatcaagaat	ttctggaact	cctgcataaa	gaagaagttg	aaacaccttt	cggcctccac	360
caacaacagt	aaatctatct	ctgcaccta	tcgtaccagt	accatgaatt	catcgatcac	420
gcccttttct	gaatcgtctg	ccgagccatt	ggagggtcatg	gcaacaaggt	atcagccatc	480
gaatgctttt	aatcatgaag	tgcccactgc	agaaaatcaa	gtttttg		526

&lt;210&gt; 1986

&lt;211&gt; 366

&lt;212&gt; DNA

&lt;213&gt; Pinus radiata

&lt;400&gt; 1986

atcagactca	catcaaacga	aactggagcc	gtgaagggtt	agttgcggtg	ttaaattcta	60
ggacagcttt	ccgtattaga	aagaggcgcc	ctttacggga	gtcggcacca	aaccagagtg	120
gagagaaata	atgggtaggg	ctccctgctg	cgaaaagggt	gggtcaaga	agggccctg	180
gacgccggag	gaagatcaaa	agctcctcgc	ttacatacag	gagcacggcc	atggcagctg	240
gagggctctg	cctcagaaag	ctgggttgct	aagatgcggg	aaaagctgca	gattgcgttg	300
gactaactat	ctaagaccag	atatcaagcg	gggaaagttc	aaccacagg	aagaacagac	360
aattat						366

&lt;210&gt; 1987

&lt;211&gt; 476

&lt;212&gt; DNA

&lt;213&gt; Pinus radiata

&lt;400&gt; 1987

ccgaactccc	cgctgtgatc	aaatgggatt	aaaaaaggga	ccctggacac	ctgaagaaga	60
tcaaatactc	atctcctata	tcaacaagca	tggtcatgga	aattggcgtg	cgctgccccaa	120
gcaagcagga	cttatgcat	gtggaaagag	ttgtcgctg	cggtggacaa	actatctgag	180
acctgacata	aaacgtggga	acttcagtct	caaggaagag	cagactatta	ttcatctgca	240
tcaaatcctt	gggaaccgat	ggtcagctat	tgcttcacac	ctccccggaa	gaacagataa	300
tgagataaaa	aatgtatgga	acactcattt	gaaaaaacgc	ctcctgcaaa	ttggggtaga	360
cccagtaacc	cacgcgccta	gaggatacaa	tgatcttaac	tgttacaccg	ctgtgaatat	420
ccgggaccat	catggcgagc	aggccgatca	tcagctccaa	agccatgtct	gcgttt	476

&lt;210&gt; 1988

&lt;211&gt; 151

&lt;212&gt; DNA

&lt;213&gt; Pinus radiata

&lt;400&gt; 1988

ggacacctga	ggaagatcga	attcttatct	cctatataaa	aaggaatggc	catggaaagt	60
ggcttgcaact	gccgaaacaa	gcaggactta	gccgatgcgg	gaagagttgt	cgactgcggg	120
ggacaaacta	tctgagacct	aacataaaac	g			151

&lt;210&gt; 1989

&lt;211&gt; 461

&lt;212&gt; DNA

&lt;213&gt; Pinus radiata

&lt;400&gt; 1989

gtaacccatc	aggagttctc	ttctgtccaa	ccccctaac	tctccacttc	acagatctca	60
tgagacttaa	cctgttctaa	cgttgcaggg	caataaccct	ctttgtctct	tgttctgtat	120
tttttgcttt	ttgaccacag	agcagggtca	acaagcttgt	acaaaggacg	cactgaaaaat	180
gaaggatttt	tactgcagct	tatgttaagg	tttattttat	ataaacgatg	ggaactgggg	240
aagaagcaac	gccaaactaag	cctgctgcca	aaccatcttc	ctcctcccag	gagacaccga	300
caacacctgt	ttatccagat	tgggcagctg	ctttccaggc	atattatggg	ccagggtgcta	360
ccccacctcc	tcctgccttt	tttgcttcaa	cagtgggatc	tgaccaact	ccacatccat	420



acatgtgggg tggacagccg ttgatgccac cttatgggac t 461

<210> 1990  
 <211> 418  
 <212> DNA  
 <213> Pinus radiata

<400> 1990  
 gtagattcct tgtctatcaa gaggggtgcac aagggtttgtt ttttaagaaca cagacaggca 60  
 gacagacaga gacgtgatca tggggcgagg gaagattgaa ataaagaaaa tagatgatgt 120  
 aacgagcaga caggtaactt tctcaaagcg caagatgggg atattcaaga aagcccacga 180  
 gctgtctgtt ttatgcgatg cagaggtggc tgttctcatc ttttcaaaca ccggaaggct 240  
 ctacgactat gctagttcaa ggtgtatgga acgaactatt gagagatatg aaaaatgtac 300  
 caaagcaatt aattgcccaa catcagatcc cattgtcgag aataagagcc caattcagga 360  
 aggcattgaa atattgaggc agaaacttcg tgcattacaa agattgcaaa gaaatctg 418

<210> 1991  
 <211> 321  
 <212> DNA  
 <213> Pinus radiata

<400> 1991  
 actaaagcag ctataaagag actgcagtct cagataatgg ttgcattcca ggcagttgat 60  
 acaacttctg cagcaattct gaaattgaga gaagatgaac tctatcctca actcgtggag 120  
 ctatctaaag ggctaattgca gatgtggagg gccatgtatg aatgccacca ggtccaaaat 180  
 catattgtcc aacaggtgag gcatttgggc aatctggcaa gcgcagaggc cacaagtagt 240  
 taccatcagc aggcaaccat tcaattggaa gctcagggtga ctgcttggta tgacagtttt 300  
 tgtagaatga taacgagcca g 321

<210> 1992  
 <211> 390  
 <212> DNA  
 <213> Pinus radiata

<400> 1992  
 gagaaaaacct aagtcctctc gcagcaagca agccacgcat tccctctcta cgactcgggt 60  
 ttggtgtaga aggcagagat ttactttgtt tctgcttgtt tgtegggtctt caccttcacc 120  
 ttcagacaac atttgtctga accgcggaac tagctcttga aatattgaaa cccacctaaa 180  
 tcgcagggga ttggtggatg ttagcagtggt tcacagagcg gtagagctag ggaaaatcca 240  
 tatacaacta catacacaga taccattat cagccatggg cgctccgaag caaaaatgga 300  
 catcagaaga agaaggtgct ctgcgagcgg gcgtggagaa gtatggcgcc ggcaagtggc 360  
 agaccattct caaggaccca gagttcgct 390

<210> 1993  
 <211> 476  
 <212> DNA  
 <213> Pinus radiata

<400> 1993  
 gcagtgggtca tatggatggg ggatccggag aggaccaaga tgccgccgat caagatcacg 60  
 atcacgatca cgatcatgat cacgagcagc agcagacgcg gaggaaacgt taccacagac 120  
 aactgctcg tcaaattcag gagatggaag cgttggttaa ggagtgtcca catcctgatg 180  
 acaaacaaag gcagcggtc agcattgaat tgggccttaa gccgcggcag gtgaaattct 240  
 ggtttcaaaa tcggcggtact cagatgaagg ctcaacagga tcgctcagac aacgccattc 300  
 tccgtgcaga gaatgaaaat ctgcggaacg agaacgtagc actccgagaa gcaattaaaa 360  
 atggtgcttg tccaaactgc ggagggtcta catcgctggg agagatgcct ggattcgacg 420  
 aacaccattt ccgtatagag aatacgcgct taaaggagga gcttgatcga gtgtct 476

<210> 1994  
 <211> 429  
 <212> DNA

## &lt;213&gt; Pinus radiata

## &lt;400&gt; 1994

gataaaactga	gtgagcaaaa	ttactcagaa	agaaggaaga	gcagaacaat	tcgcccggag	60
gaatggggttg	cacacaaggg	caacgacaag	gggaatggga	agggaaaggc	gtcccctcga	120
attcctcaag	gcgaagtcta	agaaaagggtc	tctggtcacc	ggatgaagat	atagaactta	180
ccacctatat	catgagaaag	ggcctcatgg	gctgctggaa	ctatatcgcc	aagcaggctg	240
gtctgcagag	atgtggaaag	agttgcaggc	tgagatggat	taactacttg	cgacctgggtc	300
ttaaactgttg	tgcaatttca	ccccagaag	agcgactgat	aatacagtta	caatccagtc	360
tcggtaacag	gtggtctcaa	atcgcgccac	atttaccggg	acgcacagac	aatgaggtca	420
agaattact						429

## &lt;210&gt; 1995

## &lt;211&gt; 321

## &lt;212&gt; DNA

## &lt;213&gt; Pinus radiata

## &lt;400&gt; 1995

agcgcgctctc	tgtgaaaatg	gggagatctc	cgtgctgtga	gaaggctcac	accaacaaag	60
gtgcctggac	ccaacaagaa	gatacccgcc	ttgtcgcca	cattcgagcc	catgggcaag	120
gcggtctggag	ctcgcttccc	aaggcagcag	gactgctgcg	ctgtgggaag	agttgcaggc	180
agcgatggat	aaactacctg	catccagatc	tgaagcggag	taacttttca	gaggaagaag	240
atgaactcat	cgtcagactc	cattcgctcc	tgggaaacaa	gtggtctctt	attgcgggga	300
gattgccggg	gaggacagac	a				321

## &lt;210&gt; 1996

## &lt;211&gt; 402

## &lt;212&gt; DNA

## &lt;213&gt; Pinus radiata

## &lt;400&gt; 1996

ccgcctccta	ccggggcgca	ccgacaacgc	tatcaagaac	cactggaact	cgactctgcg	60
acgtcgctat	catggcgaga	aagaccagag	caacgggcta	gctgtgaact	tggagtgggc	120
agctgaggac	aaagaaacga	tgactccgat	gacacctgtc	acagccacgg	caacggcaac	180
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gagcaacagt	agctgcagcg	ctaatagcaa	tccaggagat	gccgaggtcg	aatcctgtag	300
gcttaagagg	ctcaattttt	ctgaatcccc	atctagtctt	gaaaatatta	ataataataa	360
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## &lt;210&gt; 1997

## &lt;211&gt; 375

## &lt;212&gt; DNA

## &lt;213&gt; Pinus radiata

## &lt;400&gt; 1997

ttagcttgca	gaaaatgagg	tgcaaaacag	ggcaggcaca	agggcgattg	gaagttgaag	60
gcactcacc	tgctccttcc	aaaccaaagt	taagaaaagg	tctctggtea	cctgttgaag	120
ataaccagct	caccaactat	atcctgagaa	gaggcctcgt	cggctgctgg	aactatgtgg	180
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tacaatccat	tctcggtaac	aggtggtctc	aaattgcggc	acagttgccg	ggacgcacgg	360
acattgagat	caaga					375

## &lt;210&gt; 1998

## &lt;211&gt; 466

## &lt;212&gt; DNA

## &lt;213&gt; Pinus radiata

## &lt;400&gt; 1998

acaacagctt	gaatctagtc	gaataaagct	gaaacaaatt	gaacaagagc	ttgagcgagt	60
gaagcaacag	ggaatttcca	tcaatggaca	tttgggcgat	cataatggat	caggggctgc	120

tgcatttgat	atggaatatg	gccgttgggt	tgaagaacaa	aacagacaag	cccgtgagct	180
cagggcttct	ttacaagcac	acctgacaga	tagcgaactt	tgtgttctgg	tggataatgc	240
tatagctcat	tatgatgaac	tctttcgtat	gaagggtgct	gcttccaagt	tggatgtttt	300
ccatcttatg	tcaggcatgt	ggaaaactcc	tactgagcgt	tgttttatgt	ggatgggagg	360
ttttcggcca	tcagagcttc	tgaagattct	tactccacaa	attgagcctt	taacagaaca	420
gcaatcattc	gcagtatcta	gcttgaaact	gtcatcacag	caggca		466

&lt;210&gt; 1999

&lt;211&gt; 243

&lt;212&gt; DNA

&lt;213&gt; Pinus radiata

&lt;400&gt; 1999

ctgagagtta	agtgattggt	gggagggaaa	agagaaaaaa	gaggagatca	agaatggtga	60
ggggaaaaat	ccagatgaag	aggattgaga	ataggccag	caggcagggt	acattttcca	120
agcgtagaaa	tggattgctg	aagaaagctt	acgagctctc	ggttctctgc	gatgcagaag	180
ttggacttat	gattttctcg	ccaggaggaa	agctctatga	attcgccaat	accagcatgg	240
aga						243

&lt;210&gt; 2000

&lt;211&gt; 642

&lt;212&gt; DNA

&lt;213&gt; Pinus radiata

&lt;400&gt; 2000

cgagcgcgaa	agactgaaat	attggtgact	gaaatagagc	aacttcaaag	aaaggaatgg	60
atattaagcg	aggagaatgc	tttcctcggc	aaaaagttcg	tgcattcctca	ttccgtttcg	120
aaaactcctg	gaagtgaatc	gggaagcatc	caaaacagtg	aagtcgagac	gcaactgggt	180
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atgaagagtg	aggagtataa	tattgacgca	tgtggagaat	ttaatgttgc	atatactcct	540
acgtgtatat	atgtgatggt	ttatatatat	atatatatat	atataatata	gatttgaatc	600
tataaaattt	taaattatat	atttagttta	aaaaaaaaaa	aa		642

&lt;210&gt; 2001

&lt;211&gt; 485

&lt;212&gt; DNA

&lt;213&gt; Eucalyptus grandis

&lt;400&gt; 2001

gagagagtct	gcaaactgcg	cgtcccgcgt	cgccgatcgc	cgggagaatc	gccgccggcg	60
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aatcgccaag	cacggcgccg	gcaagtggaa	gaacatcctc	aaggaccccg	aattcgcccc	180
cgccctcgtc	aatcgctcca	acatcgacct	caaggacaag	tggcgtaact	tgagcgtcgg	240
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tctgt						485

&lt;210&gt; 2002

&lt;211&gt; 356

&lt;212&gt; DNA

&lt;213&gt; Eucalyptus grandis

&lt;400&gt; 2002

cgactcgtea	gtcagctcgt	gcactccttg	caattcatga	ttattttctcc	cgacttcggg	60
cccttagttc	cctctggctt	gcccgtccaa	gagaatgaag	aggctcatgg	ctatgcaggc	120

tgacatgtac	attggtgata	tttaggaagc	tatcagtttt	gaagtagttt	cggacctaga	180
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cttagacacg	aagtcacaga	gaattgattg	atggtatgct	aagctatcat	aggttgggat	300
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&lt;210&gt; 2003

&lt;211&gt; 713

&lt;212&gt; DNA

&lt;213&gt; Eucalyptus grandis

&lt;400&gt; 2003

tctccatcca	aattccacc	ttcctccctt	cctccctttc	cccccttcc	tccttctgca	60
ccgaaggaag	cccccgctt	gcaagccacc	tctcggtaaa	gttcgctcct	ttttgggtcg	120
gcgaatcttg	ggtcgatacg	tggcttcgag	gaaggagggtg	gatacgatca	agggaccgtg	180
gagccccgag	gaggacgagg	ccctccgcct	cctggtgcag	aagcacggcc	cccggaaactg	240
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caaccagctc	tccccgcagg	tggagcaccg	ggccttcacc	ccggaggagg	acgacatcat	360
cgtccgcgcc	cacgcccggg	tccgcaacaa	gtggggccacc	atcgcccgcc	tcctctccgg	420
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cctgagcccc	ggcagcccg	ccggatccgg	catgagcgac	tccagcgtgc	acttcgtgta	660
ccggcccgtc	gcgaagaccg	gccccgtggt	gcccccgacg	gtcgaggcga	cgg	713

&lt;210&gt; 2004

&lt;211&gt; 341

&lt;212&gt; DNA

&lt;213&gt; Eucalyptus grandis

&lt;400&gt; 2004

acaggttgct	caattaagag	ttgagaattc	tactttactg	aaacgtctct	cggacataag	60
ccagaagtac	aatgtagcag	ctgttgacaa	cagagttttg	aaagctgatg	tcgaaacctt	120
gagagcaaag	gtgaagatgg	ctgaagagac	ggttaaaaga	gtaaccggac	tgaacccaat	180
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tgatacatca	gcggatgctg	cagttcctgt	gcgagatgac	ccaaagcacc	aattctatca	300
aaccaattct	agtaaccccg	catcatctgc	tgacgatatg	a		341

&lt;210&gt; 2005

&lt;211&gt; 1403

&lt;212&gt; DNA

&lt;213&gt; Eucalyptus grandis

&lt;400&gt; 2005

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tttcttcatc	accatcgctc	tcgtctctga	ctttgatggg	ttggcgaggg	ggggagctga	120
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gtgttctcgt	ttcgggcgcg	ggcgctctgc	ttccatggct	gcttttaagt	aagacgcca	240
aagaaaacct	ttttgtcttc	tcgagtgtca	tgaactcgca	ctgaaagtgc	gcgccgaacc	300
gagaagaaga	agaagaagaa	gaagaagaag	aaagagaaac	catcccctta	gaaaacgcga	360
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agaagaagcg	gcggctgagc	atcgaccagg	tcaaggccct	ggagaagaac	ttcgaggtgg	720
agaacaagct	cgagccggag	cggaaggtga	agctggccca	ggagctgggg	ctgcagccgc	780
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aagacgacaa	ccccgagagc	aatctctccg	tcaaagaaga	ggtcatcatc	cccggccacg	1020
acgtgtcggg	caagatccgg	gccgcagacg	acggtgacga	cgacaccaa	cgctctcctc	1080

ccccctccgat	caccgccccg	cctcgcgagc	tgagcttcaa	caatggtggg	ctgaaggacg	1140
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gcagcccga	ccccgccg	cagagccacg	gcggcttctt	gaaattcatg	gggtcatcgt	1260
cctcttcggc	ctccccaccg	cgctcgccac	cggtcttcctt	cggcgggtgc	ttcagcttcc	1320
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cgtacgtgaa	gatggaggag	cac				1403

<210> 2006  
 <211> 283  
 <212> DNA  
 <213> *Eucalyptus grandis*

<400> 2006						
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actcagtttt	atcagcaaga	agcatccaag	cttcggagac	agataagaga	aatccagggtc	120
tcagataggc	atcttctagg	tgagggtata	agtgatttga	gcttcaagga	tctcaagaat	180
ctcgagagca	aattagagaa	atcgatcagc	cgtgttagat	caaagaagaa	tgagatgctt	240
tttgccgaga	ttgagtacat	gcagaagagg	ggccttgtgc	agg		283

<210> 2007  
 <211> 252  
 <212> DNA  
 <213> *Eucalyptus grandis*

<400> 2007						
agagaacaag	ataaacaggc	aggtgacctt	cgctaagagg	aggaatgggc	tgctcaagaa	60
ggcctatgag	ctctctgtcc	tctgcgatgc	tgagggtcgcc	ctcattatct	tctccacccg	120
cggcaagctc	tatgagttct	gcagcagccc	tagcatgtc	aaaacgctcg	accgttacca	180
aaagtgcagc	tatggatccg	ttgaagttaa	caaaccctcc	aaagaactag	agaatgccta	240
ccgggagtag	tt					252

<210> 2008  
 <211> 386  
 <212> DNA  
 <213> *Eucalyptus grandis*

<400> 2008						
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atgggtagag	ggaagataga	gatacagaag	atagagaacg	acacgaacag	gcaagtgacc	120
tactcgaagc	ggaggaatgg	catcttcaag	aaagcccacg	agctcaccgt	cctctgcgac	180
gctagggttt	ccatcctcat	gctctccggc	aacaagaagc	tccacgagta	catcagcccc	240
accaccacga	caaaaaggat	gattgatgat	taccagaagg	ctcttgggat	cgatctgtgg	300
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tttcggaagg	aaataaggca	gatatt				386

<210> 2009  
 <211> 123  
 <212> DNA  
 <213> *Eucalyptus grandis*

<400> 2009						
gagaaacctt	atgggggaag	atttggggac	cttgaactcg	aaggagctcg	agcagctcga	60
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tca						123

<210> 2010  
 <211> 581  
 <212> DNA  
 <213> *Eucalyptus grandis*

<400> 2010

cttagggcta	gcttgcttac	atcttcacca	tcttctgcgt	agtttcaaca	ttttagagtt	60
gaagaaaagg	agaaaaaact	aggcaaaactt	gcgaccatgg	tttttccaac	ccaagccacg	120
cccgaggagt	ccccgcagag	gaaaatgggg	aggggaaaga	tgcgagatcaa	gcggatcgag	180
aacacgacga	atcggaagt	gactttctgc	aagcggcgga	atggcctcct	caagaaggca	240
tatgaactct	ccgttctttg	cgaagccgag	gtcgccctca	togtcttctc	cagccgcggc	300
cgctcttatg	agtatgcca	cgatagtgtc	aaagcaacca	tgcgagaggta	caagaaggct	360
tgctcagatt	cctccagtag	cggatccgtt	tctgaagcta	atgttcagtt	ttatcagcaa	420
gaatccgcca	agttgcaaca	acagattaat	aacatgcaga	acaataacag	gcaactggtg	480
ggtgactcaa	ttgctgggat	gaatatgaag	gatatgaaga	ctacggagca	aaaactagaa	540
aaagcaatcg	ctaaaattcg	cgccaaaaag	aatgcgattt	t		581

&lt;210&gt; 2011

&lt;211&gt; 538

&lt;212&gt; DNA

&lt;213&gt; Eucalyptus grandis

&lt;400&gt; 2011

tcagcacaag	gaacaaatgc	tggttgaagc	taacagagaa	ttaaggaaga	agctggaaga	60
gagcaatata	agaatccctc	tccgccttgg	atgggaagct	gaggatcaca	ataacatttc	120
atacagccgc	cttcccatgc	agtcgcaagg	attgatcttc	cagcccttag	gcggcaaccc	180
gacattgcag	atcggttaca	atcctgcagg	ctcgaaatgaa	ttgaatgttt	cggctgccga	240
ccaacatccc	aacggattca	ttcccggatg	gatgctctga	atcgttccgc	aagtgaactg	300
cttgctggaa	gttccatata	aagtacattt	tccagttttt	gctatgatata	atgactcttc	360
ttcttcttga	tgacctatac	gaagatccat	cattcgtgga	tattgtccat	ggacgtaccc	420
taaaaggaag	gacagtatga	atccaatcta	gcttactatt	ttgtataaga	ataaacatct	480
gtgctgctga	tatttggaat	tcattctatgt	tatttaatatga	aaaaaaaaaa	aaaaaaaa	538

&lt;210&gt; 2012

&lt;211&gt; 341

&lt;212&gt; DNA

&lt;213&gt; Eucalyptus grandis

&lt;400&gt; 2012

aggcagcaaa	gagctcgagt	ccttggaag	acagctagat	gggtcattga	agcagatcag	60
atcacgaaga	actcagtaca	tggttagataa	gctgactgat	cttcaacatc	gggaacagtt	120
gctccacgaa	gcaaacagga	ccttgaatca	acggttgatg	gaaggatacc	aagtgaatgc	180
gctccagtta	aatcaacatg	ccgaggaagt	cggaggatac	ggatcatccac	cgccgcgcgc	240
actgccgcca	cagccacttg	ctcagcctca	cagcgaagct	tttttcaatc	ccttggaatg	300
tgaaccact	ttgcaaatgg	gataccagcc	cgatccagtg	t		341

&lt;210&gt; 2013

&lt;211&gt; 934

&lt;212&gt; DNA

&lt;213&gt; Eucalyptus grandis

&lt;400&gt; 2013

gcgccatgac	gcggcgatgc	tcccactgct	gcaacaagg	ccacaactcc	aggacctgcc	60
ccgtccgcgg	cgccggcggg	gacggcgggg	gcgcggcggc	cgccccctcc	tcctcctccc	120
cctccacctc	ctcctctggc	gccgcggcgg	cgccggcggc	ctcgccctcc	ggcgccgggg	180
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gtgtgctaaa gccaatccca gtaattccaa aaga

934

&lt;210&gt; 2014

&lt;211&gt; 372

&lt;212&gt; DNA

&lt;213&gt; Eucalyptus grandis

&lt;400&gt; 2014

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caagtctgaa	tgggaagagt	atgggtgaccc	cattttctcca	ccggggccatt	ctgcaacttc	300
agttttcaat	ggttgtactc	ctttgagcac	tagtggaagc	tcactggatg	aacaaccgta	360
tcccgatacc	tt					372

&lt;210&gt; 2015

&lt;211&gt; 411

&lt;212&gt; DNA

&lt;213&gt; Eucalyptus grandis

&lt;400&gt; 2015

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tgcttgcagc	ctgggggttg	agaacagcaa	ggagtgcagt	tgaggagag	gagcgagcgg	360
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&lt;210&gt; 2016

&lt;211&gt; 356

&lt;212&gt; DNA

&lt;213&gt; Eucalyptus grandis

&lt;400&gt; 2016

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&lt;210&gt; 2017

&lt;211&gt; 356

&lt;212&gt; DNA

&lt;213&gt; Eucalyptus grandis

&lt;400&gt; 2017

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&lt;210&gt; 2018

&lt;211&gt; 495

&lt;212&gt; DNA

&lt;213&gt; Eucalyptus grandis

&lt;400&gt; 2018

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&lt;210&gt; 2019

&lt;211&gt; 613

&lt;212&gt; DNA

&lt;213&gt; Eucalyptus grandis

&lt;400&gt; 2019

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agccgccttc	ccc					613

&lt;210&gt; 2020

&lt;211&gt; 564

&lt;212&gt; DNA

&lt;213&gt; Eucalyptus grandis

&lt;400&gt; 2020

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&lt;210&gt; 2021

&lt;211&gt; 410

&lt;212&gt; DNA

&lt;213&gt; Eucalyptus grandis

&lt;400&gt; 2021

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atcgatattt	aaccacccgc	caagcagccc	gcgctcttct	cgcatcaat	gactacatct	240
cacgtctccg	agctctaagt	tcattatggt	tagctcgtcc	taggactgaa	aacatctggt	300
ctgctaaact	cttctgatgt	aatcgatagt	tttgattgaa	attaacggtt	ctagtgggga	360
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&lt;210&gt; 2022



<211> 328  
 <212> DNA  
 <213> Eucalyptus grandis

<400> 2022  
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 ttttagtctc tttacctctg tgtttgatgt gaatattgtc cgatgtctct gatgttctta 180  
 cttcatcttg ttggcagtgg taaaatgtca gtttcgtgtc tgttgactgg attggctctc 240  
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<210> 2023  
 <211> 380  
 <212> DNA  
 <213> Eucalyptus grandis

<400> 2023  
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 ggtcgtcgta aaattgaaat acagccaata acgcacgagc gaaaccgatc tgccacattc 180  
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<210> 2024  
 <211> 322  
 <212> DNA  
 <213> Eucalyptus grandis

<400> 2024  
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 ttctccggc aagtgagctt caacaagaaa aagcggcgct cgagcctctt tgacatggta 180  
 aaaaatcagt gctcctataa actattacca tcatatcggc tatcatcaat tagtttgatg 240  
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<210> 2025  
 <211> 387  
 <212> DNA  
 <213> Eucalyptus grandis

<400> 2025  
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 gatggcaagg cctggcgaca atggagtcca tgaagaaatg tcacaattca ctagtaatgg 180  
 tctcgccagt agtgcggctg ctggaaacga tttcatattc tctagtaagc ctgctgggtc 240  
 atcgtttagat tttattggaa ctagacctac tcagctacag caacaaccac agccacagcc 300  
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<210> 2026  
 <211> 450  
 <212> DNA  
 <213> Eucalyptus grandis

<400> 2026  
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aatggggcag	ttgcacatgt	tccacctcct	cgtcctaaac	gcaaagctgc	tcatccctac	360
cctcaaaagg	catcgaaaaa	tgtttttagtg	ccgctgcaag	catccatggc	ccagccttct	420
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&lt;210&gt; 2027

&lt;211&gt; 786

&lt;212&gt; DNA

&lt;213&gt; Eucalyptus grandis

&lt;400&gt; 2027

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actacaccag	cactgctggt	gctgggtgctg	ctgccacttc	acactatctg	ttctaacgct	720
aacaacagcg	gcaacaaggc	cacgcctcac	tcgacgactt	gtgaagaatt	atcatcatca	780
tcaaca						786

&lt;210&gt; 2028

&lt;211&gt; 476

&lt;212&gt; DNA

&lt;213&gt; Eucalyptus grandis

&lt;400&gt; 2028

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tttctcatga	atcggcagaa	aattccagct	ccaggagcga	tcaagaagca	aatagacctg	420
acaaggtaca	gagacgtcta	gcacagaacc	gtgaagctgc	tcgaaaaagc	cgtctg	476

&lt;210&gt; 2029

&lt;211&gt; 535

&lt;212&gt; DNA

&lt;213&gt; Eucalyptus grandis

&lt;400&gt; 2029

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&lt;210&gt; 2030

&lt;211&gt; 723

<212> DNA  
<213> Eucalyptus grandis

<400> 2030  
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ccg 723

<210> 2031  
<211> 412  
<212> DNA  
<213> Eucalyptus grandis

<400> 2031  
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gcgaggcagg tgacattctc gaagaggaga agagggtga tcaagaaggc cgaggagctc 240  
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gatttctcca gctccaggca gatgaaggga gaggatctgg aggggttaaa cgtggaggaa 360  
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<210> 2032  
<211> 495  
<212> DNA  
<213> Eucalyptus grandis

<400> 2032  
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cgttaaagat gtatg 495

<210> 2033  
<211> 220  
<212> DNA  
<213> Eucalyptus grandis

<400> 2033  
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<210> 2034  
<211> 445

&lt;212&gt; DNA

&lt;213&gt; Eucalyptus grandis

&lt;400&gt; 2034

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tggattctct	gagtgccgag	aatag				445

&lt;210&gt; 2035

&lt;211&gt; 349

&lt;212&gt; DNA

&lt;213&gt; Eucalyptus grandis

&lt;400&gt; 2035

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&lt;210&gt; 2036

&lt;211&gt; 648

&lt;212&gt; DNA

&lt;213&gt; Eucalyptus grandis

&lt;400&gt; 2036

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&lt;210&gt; 2037

&lt;211&gt; 268

&lt;212&gt; DNA

&lt;213&gt; Pinus radiata

&lt;400&gt; 2037

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gaagaagaac	ttattatcag	aatgtataag	ctcgtgggca	acagggtggc	attgattgct	180
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aatgctgcac	ctctgaagcc	taatacct				268

&lt;210&gt; 2038

&lt;211&gt; 1055

&lt;212&gt; DNA

&lt;213&gt; Pinus radiata

&lt;400&gt; 2038

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&lt;210&gt; 2039

&lt;211&gt; 167

&lt;212&gt; DNA

&lt;213&gt; Pinus radiata

&lt;400&gt; 2039

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&lt;210&gt; 2040

&lt;211&gt; 357

&lt;212&gt; DNA

&lt;213&gt; Pinus radiata

&lt;400&gt; 2040

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tgttcagaag	gaagtaacct	gacgagtaca	gcaaaaagagc	aagacgtcca	gtgttta	357

&lt;210&gt; 2041

&lt;211&gt; 438

&lt;212&gt; DNA

&lt;213&gt; Pinus radiata

&lt;400&gt; 2041

ccgaagcaag	atcagaaact	cgttacttac	atacaggagc	atggccatgg	cagctggagg	60
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atgggaatcg	accccgtagc	gcacaagccc	aagtccgaat	cgattatggt	acctggtggt	360
cagtcgtcca	atgggtcctc	gaatctgagc	catatggcgc	agtgggagag	cgcgcgcctg	420
gaagccgaat	cgaaggct					438

&lt;210&gt; 2042

&lt;211&gt; 319

&lt;212&gt; DNA

&lt;213&gt; Pinus radiata

&lt;400&gt; 2042

ggaatttttca	ttggaggaag	ttgtgttggt	ggggatcaaa	gtcattcaat	gagtggaaat	60
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atgggaggat	tccgtcctt					319

&lt;210&gt; 2043

&lt;211&gt; 404

&lt;212&gt; DNA

&lt;213&gt; Pinus radiata

&lt;400&gt; 2043

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gccatgaaag	tcccgagcgc	acccaattcg	atgcctctgg	cagccgccac	cctcgcaatg	180
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aataacccaa	ccccttcaat	gggaatggga	gatgaaatga	attgaagaaa	gtgaacttaa	360
aaaaaaaaa	aaaaaaactc	gagactagtt	ctctctctct	cttc		404

&lt;210&gt; 2044

&lt;211&gt; 379

&lt;212&gt; DNA

&lt;213&gt; Pinus radiata

&lt;400&gt; 2044

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&lt;210&gt; 2045

&lt;211&gt; 369

&lt;212&gt; DNA

&lt;213&gt; Pinus radiata

&lt;400&gt; 2045

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gtcggcaaca	agtggctctc	tattgcagga	agattgccgg	ggcggacgga	caacgagata	240
aagaactact	ggaacactca	catcaagaga	aaattgctga	tcaagggaat	cgacccccag	300
tcccatcgtc	ctctcgggca	gccctacagc	agcaacaata	tgcccgctctc	tgggtatttt	360
ctgacctcg						369

&lt;210&gt; 2046

&lt;211&gt; 530

&lt;212&gt; DNA

&lt;213&gt; Pinus radiata

&lt;400&gt; 2046

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aagttgctca	tggaggagaa	cgatcgccct	cagaagcaag	tttcacagtt	ggtgtatgag	180

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aaggctaaag	gagctgctgt	cgattgggtc	cagatgcctg	ggatgaagcc	tggtccggat	420
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cttgtaggat	tagatcctac	aaagggttga	gagatcctta	aagatcgccc		530

&lt;210&gt; 2047

&lt;211&gt; 358

&lt;212&gt; DNA

&lt;213&gt; Pinus radiata

&lt;400&gt; 2047

gctctaccag	tgtcaagcct	tgtttgaaaa	tggcgcagtc	gaaaaactct	caagaacctta	60
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caactcctcc	tattgtttgg	catactgctt	cttcacaaga	acctggaaga	ctacctcttc	300
tatctccatt	gaaaatgccca	ataattatgg	agaaaacgga	atcttgggga	tcagctgc	358

&lt;210&gt; 2048

&lt;211&gt; 376

&lt;212&gt; DNA

&lt;213&gt; Pinus radiata

&lt;400&gt; 2048

aagacaagaa	gctcattaat	ttcctgacta	ctcatggcca	atgctgctgg	cgcaccgttc	60
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agaataatga	tgtccc					376

&lt;210&gt; 2049

&lt;211&gt; 656

&lt;212&gt; DNA

&lt;213&gt; Pinus radiata

&lt;400&gt; 2049

caaacaatca	tcacgagatg	aaattccctt	cagaatggga	tttctgagat	tcgataccttg	60
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&lt;210&gt; 2050

&lt;211&gt; 466

&lt;212&gt; DNA

&lt;213&gt; Pinus radiata

&lt;400&gt; 2050

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gctgaagtcg	cccttatcat	tttctcgga	actggcaaga	tcagcgagtt	tgcaagccac	180

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&lt;210&gt; 2051

&lt;211&gt; 390

&lt;212&gt; DNA

&lt;213&gt; Pinus radiata

&lt;400&gt; 2051

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ctaccagggg	aacgcggcgc	catgtcttcg	aggagctgtt	cgttggtcgg	ccttaatggc	120
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cattcatcca	gcaatgcccg	tgagaggaag	aggggagtg	cctggacaga	ggaagaacac	360
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&lt;210&gt; 2052

&lt;211&gt; 312

&lt;212&gt; DNA

&lt;213&gt; Pinus radiata

&lt;400&gt; 2052

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&lt;210&gt; 2053

&lt;211&gt; 393

&lt;212&gt; DNA

&lt;213&gt; Pinus radiata

&lt;400&gt; 2053

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&lt;210&gt; 2054

&lt;211&gt; 210

&lt;212&gt; DNA

&lt;213&gt; Pinus radiata

&lt;400&gt; 2054

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tataatgaat	gtctaaagcc	cagcacaagg				210

&lt;210&gt; 2055

&lt;211&gt; 385

&lt;212&gt; DNA



&lt;213&gt; Pinus radiata

&lt;400&gt; 2055

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caaataatgg	gtgaaggcct	tgaatcatta	agcatgaagg	agctcaagca	tattcaagtt	360
caattggaaa	aaagtattag	ttgtg				385

&lt;210&gt; 2056

&lt;211&gt; 545

&lt;212&gt; DNA

&lt;213&gt; Pinus radiata

&lt;400&gt; 2056

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tggtc						545

&lt;210&gt; 2057

&lt;211&gt; 385

&lt;212&gt; DNA

&lt;213&gt; Pinus radiata

&lt;400&gt; 2057

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&lt;210&gt; 2058

&lt;211&gt; 436

&lt;212&gt; DNA

&lt;213&gt; Pinus radiata

&lt;400&gt; 2058

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&lt;210&gt; 2059

&lt;211&gt; 624

&lt;212&gt; DNA

&lt;213&gt; Pinus radiata

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 ttcgacagag caatatgact agaa 624

<210> 2060  
 <211> 364  
 <212> DNA  
 <213> Pinus radiata

<400> 2060  
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 gtct 364

<210> 2061  
 <211> 258  
 <212> DNA  
 <213> Pinus radiata

<400> 2061  
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<210> 2062  
 <211> 347  
 <212> DNA  
 <213> Pinus radiata

<400> 2062  
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 gaaaaggtag gctctttgga agaggagaat agtgaacttc ttaccaagtt gattcctaga 180  
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<210> 2063  
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 <213> Pinus radiata

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tcccattagt	caagctgttg	ctgcagt				267

&lt;210&gt; 2064

&lt;211&gt; 336

&lt;212&gt; DNA

&lt;213&gt; Pinus radiata

&lt;400&gt; 2064

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agctttcttc	tcaaaaaaaaa	aaaaaaaaaa	aaaaac			336

&lt;210&gt; 2065

&lt;211&gt; 573

&lt;212&gt; DNA

&lt;213&gt; Pinus radiata

&lt;400&gt; 2065

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&lt;210&gt; 2066

&lt;211&gt; 407

&lt;212&gt; DNA

&lt;213&gt; Pinus radiata

&lt;400&gt; 2066

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&lt;210&gt; 2067

&lt;211&gt; 407

&lt;212&gt; DNA

&lt;213&gt; Pinus radiata

&lt;400&gt; 2067

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<210> 2068  
 <211> 353  
 <212> DNA  
 <213> Pinus radiata

<400> 2068  
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 ttgggcttct acacatcttt cccggaagta gatggggcgg gcactaggaa gaacagaaat 180  
 aaagaggata gaaaatgaag tgagcaggaa tgtgagtttt agaaagagac gacgtggatt 240  
 gctgaagaag gctgcggagt tgtcaatact ttgcgatgca acagtgggcg ttgttgtttt 300  
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<210> 2069  
 <211> 393  
 <212> DNA  
 <213> Pinus radiata

<400> 2069  
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 cgaatacaaa cgaaaactgc cgaaaacgca atgccttcat cgcttcaaaa aacagagttt 240  
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<210> 2070  
 <211> 461  
 <212> DNA  
 <213> Pinus radiata

<400> 2070  
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 aatcacacaa aaagcccaaa gcgtggtaaa ttacgaaatt agaattatat tatcattaaa 180  
 aaaaaaccct attttcattg tatagcagta ggcttgattt actgctatga tagcggaggt 240  
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<210> 2071  
 <211> 373  
 <212> DNA  
 <213> Pinus radiata

<400> 2071  
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 atctgaagcg tggaaaacttc tcagaagaag aagacgaact catcatcaaa ctccactccc 300  
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<210> 2072  
 <211> 506  
 <212> DNA  
 <213> Pinus radiata

&lt;400&gt; 2072

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cccctgcccc	gactctgctg	ctgcaagaaa	atgatacaga	gcagcagcag	caggagcaac	420
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cgagggccag	agaacccccac	gaccac				506

&lt;210&gt; 2073

&lt;211&gt; 494

&lt;212&gt; DNA

&lt;213&gt; Pinus radiata

&lt;400&gt; 2073

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atgctgttat	atatccttcc	ttgctgcaac	ttgaaggagg	tataacagag	atggaagata	120
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&lt;210&gt; 2074

&lt;211&gt; 1678

&lt;212&gt; DNA

&lt;213&gt; Eucalyptus grandis

&lt;400&gt; 2074

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<210> 2075

<211> 636

<212> DNA

<213> Eucalyptus grandis

<400> 2075

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gcagcccatt	tgcaagatac	ttataatgct	tcaacattca	caccgaaagc	aacttaccct	540
aatcctacag	taccagtggg	agaaaccggc	gacgaaaatg	atctgaaagt	gggcagacag	600
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<210> 2076

<211> 862

<212> DNA

<213> Eucalyptus grandis

<400> 2076

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acaataatag	ctagggtttgt	ttacataaaa	tggacattag	cttttatctc	acatatatat	720
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<210> 2077

<211> 907

<212> DNA

<213> Eucalyptus grandis

<400> 2077

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<210> 2078  
 <211> 658  
 <212> DNA  
 <213> Eucalyptus grandis

<400> 2078						
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<210> 2079  
 <211> 373  
 <212> DNA  
 <213> Eucalyptus grandis

<400> 2079						
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<210> 2080  
 <211> 421  
 <212> DNA  
 <213> Pinus radiata

<400> 2080						
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<210> 2081  
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 <212> DNA  
 <213> Pinus radiata

<400> 2081						
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&lt;210&gt; 2082

&lt;211&gt; 244

&lt;212&gt; DNA

&lt;213&gt; Pinus radiata

&lt;400&gt; 2082

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gcgg						244

&lt;210&gt; 2083

&lt;211&gt; 1151

&lt;212&gt; DNA

&lt;213&gt; Pinus radiata

&lt;400&gt; 2083

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aaaaaaaaaa	a					1151

&lt;210&gt; 2084

&lt;211&gt; 372

&lt;212&gt; DNA

&lt;213&gt; Pinus radiata

&lt;400&gt; 2084

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372

&lt;210&gt; 2085

&lt;211&gt; 1285

&lt;212&gt; DNA

&lt;213&gt; Pinus radiata

&lt;400&gt; 2085

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&lt;210&gt; 2086

&lt;211&gt; 1218

&lt;212&gt; DNA

&lt;213&gt; Pinus radiata

&lt;400&gt; 2086

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&lt;210&gt; 2087

&lt;211&gt; 473

&lt;212&gt; DNA

&lt;213&gt; Pinus radiata

&lt;400&gt; 2087

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&lt;210&gt; 2088

&lt;211&gt; 1150

&lt;212&gt; DNA

&lt;213&gt; Pinus radiata

&lt;400&gt; 2088

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aaaaaaaaaa						1150

&lt;210&gt; 2089

&lt;211&gt; 723

&lt;212&gt; DNA

&lt;213&gt; Pinus radiata

&lt;400&gt; 2089

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&lt;210&gt; 2090

<211> 768  
 <212> DNA  
 <213> Pinus radiata

<400> 2090  
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 agtagaggag gaggaggacg agcatctggt ggaggtgtct cactcggtta cttcttttaa 660  
 tccacctccg cgtccgcctc cttcatccag cgaaccccca ccgcctccgc tgctccgct 720  
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<210> 2091  
 <211> 479  
 <212> DNA  
 <213> Pinus radiata

<400> 2091  
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 aatgattgag aacgcaacaa acaggcaagt caccttctct aagagaagag ggggacttaa 180  
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 cagcacggc aaactccatg agtgggtcaag ctcgagctca ttctttatgt taaaaaaaag 300  
 catgaagaaa attctcgaga gataccagaa atcagagcag ggactaggac tcatggatta 360  
 tcaacatcaa cagctgttgt gtgaaatgag acgaatcacc aaagaaaatg aaagccttca 420  
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<210> 2092  
 <211> 557  
 <212> DNA  
 <213> Pinus radiata

<400> 2092  
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 cagtgttatg tgatgcagag gtagcactga taatattctc aagcagagga aaactctatg 180  
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 tgcaagacgc gactgtatcg gaccgggagg cgagaattg gcatcaagag gttggcaaat 300  
 taaaagccag agttgaactt ttacaacgat cacaaggca cttattaggt gaagacctgg 360  
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 aggcattcaa tgccatg 557

<210> 2093  
 <211> 356  
 <212> DNA  
 <213> Pinus radiata

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 gaacgggacc agcaggcagg ttactttttg taagcgcagg aacgggtctgc tgaagaaagc 180  
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gaagcgctat	gagttcgcta	atcccagcat	gcagaaaatg	ttggcacggt	acgaaaattt	300
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<210> 2094  
 <211> 404  
 <212> DNA  
 <213> Pinus radiata

<400> 2094						
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<210> 2095  
 <211> 584  
 <212> DNA  
 <213> Pinus radiata

<400> 2095						
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<210> 2096  
 <211> 453  
 <212> DNA  
 <213> Pinus radiata

<400> 2096						
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<210> 2097  
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 <212> DNA  
 <213> Pinus radiata

<400> 2097						
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&lt;210&gt; 2098

&lt;211&gt; 430

&lt;212&gt; DNA

&lt;213&gt; Pinus radiata

&lt;400&gt; 2098

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gtggtataaa	taatgcggct	aaagagaaa	atactcagca	ttcaaacgc	gaaattgcaa	360
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&lt;210&gt; 2099

&lt;211&gt; 513

&lt;212&gt; DNA

&lt;213&gt; Pinus radiata

&lt;400&gt; 2099

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&lt;210&gt; 2100

&lt;211&gt; 526

&lt;212&gt; DNA

&lt;213&gt; Pinus radiata

&lt;400&gt; 2100

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cagacggcaa	aacatatgaa	cttttcgaat	aatacttcag	acgagaaaat	gaagcaagaa	480
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&lt;210&gt; 2101

&lt;211&gt; 295

&lt;212&gt; DNA

&lt;213&gt; Pinus radiata

&lt;400&gt; 2101

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tgtagctttg	tagtgggctc	gatgaaaatg	cagttggggc	ctgtgctgaa	cttgtctttg	240

ctccaattga tgcatectta gctgacagtt ctcttttgc tcccttctggt ttcag 295

<210> 2102  
 <211> 296  
 <212> DNA  
 <213> Pinus radiata

<400> 2102  
 ggagaatcat ggcctgacac aggaagaagc tttgctatcg agggatatgt ttctgttgca 60  
 ggtatcgat cgacgtgttt ctattgctta gcagagaaac ttgaagtgt aaattttaat 120  
 ttttactaat tcatttgaat tgatgatctt gccattttga ttggacagct ttgtagtggg 180  
 ctgatgaaa atgcagttgg ggctgtgct gaacttgtct ttgctccaat tgatgcatcc 240  
 ttagctgaca gttctccttt gctcccttct ggtttcagag tcattccttt agactc 296

<210> 2103  
 <211> 475  
 <212> DNA  
 <213> Pinus radiata

<400> 2103  
 gaagtgtgga tgttcttact gctttctcaa ctggaaatgg aggaacaatt gagctttttat 60  
 acatgcagat gtagcgcca actactttag ctcttgccc agattttctgg actcttagat 120  
 acatttctgt attggaagat ggtagtcttg tggtttgca gagatccttg agtggaaactc 180  
 agggaggtcc cagcatgccc gcggtgcagc agtttgttag agcagaaatg caaccagtg 240  
 gatatttgat tcggccatgc gaaggtggag gttctcta tcatattgtt gaccatattg 300  
 atttggagcc atggagtgtt cctgaagtgc tacgtccact gtatgaatca tccactgtac 360  
 ttgccccaaa gggtacaatg tcggccttac gccatttgcg tcaaatagca caagaggcat 420  
 cttctgatgt ggtccttggc tggggaagac aaccgcgtgc attacggaca ttttag 475

<210> 2104  
 <211> 1612  
 <212> DNA  
 <213> Eucalyptus grandis

<400> 2104  
 cccatctccc ttcaaaaaac gacgcccggc acgacgacga ccccccacca ccaccaccac 60  
 catcgacgac tcggcacagc acgcgaacca gtcgcggaag gtctcgagaag gaattcgacg 120  
 ctccgggaatc ggccgggaga agaggaggaa gacgacgaat cggagcctta tgggtgtccgt 180  
 gaaccggaac ccggcgcaag ggttttactt ctctgatccc gcgaacacga ggatccacgg 240  
 tgtcaacgcc ggctcggcgg ccgagggcgg cggcgccggc ccgcccgtacg cggaggaccc 300  
 gagcaagaag gtgcggaagc cgtacacct caccaagtcc agggagagct ggaccgagca 360  
 ggagcacgac aagttcctgg aggcgcttca cctgtttgat cgtgattgga agaagattga 420  
 agcttttgtt ggatcaaaaa cagttattca gattcgtagc catgcacaaa agtactttct 480  
 aaagggttcag aagaatggga caagtgaaca tgtaccacca ccacggccaa aaaggaaagc 540  
 tgcccatcca taccacaga aagcacctaa agctccagtt gtttcccaag tcaatgggccc 600  
 atttcaagtt tcatctgctt ttttggaaac cgggcataat gtcagacctg atggatcagc 660  
 attgcttggg aattcccgta caagtgtagc cttgtcttca tggagtcata actctgtacc 720  
 cgcaatgagt gcatcacagg ggacaaaaga tgtaggaatt tctggccac cagttccaag 780  
 taattgttgc aacagcagta gtaatgacag tacaccgagg tcctggccaa atgctcaagc 840  
 aattgaacct ttggatcaac agaaacatct tagagttagt ccagatttcg cgcaagtata 900  
 taggttcatt ggcagcgttt ttgacccgga tgctgggtgt catctacaga gattgaagca 960  
 gatggacct ataaatttgg aaacggtagt gctcttgatg aaaaatctca gcgcaaattt 1020  
 gacaagcccc gaattcgaga aatatcagca cggcttgttt gcttcatatg aggggtggtcc 1080  
 tgagaagtcc aaatctggcg gttccttcaa gttgctcccc gaaaaatctg gaagcctaatt 1140  
 tctgtctgcg taacttgtga ctttaacaaa ctcgacctct tcgagtcggg catcgctcggg 1200  
 gaaaactgca ctgtctttga agatcaagat tagtagtgga gaataaagat gccaaaggatc 1260  
 gccaaagctgt ggggatcgca aaactggtcc gtaactgagg tctgggcttg tggtttttgt 1320  
 aggtctgtaa atatcctgtg aaatgggaac acggcagttt gtgcgaacaa tgctgagaga 1380  
 catcatcgga agtttaggct ttgtataggt tcttatcgga ctttgtatat ggctgcgaga 1440  
 tacagagatg tcgtgcgacc tagaataaag cttaggcgtc gggctctgtt tgtttatgta 1500  
 tatgtgcgcg tgtaagatcg aagaagagga agtagcgagg aacgtttgat caggttgtgg 1560

tttttggtag actatatattgc attggctgct ttctctcaaa aaaaaaaaaa aa 1612

<210> 2105  
 <211> 1576  
 <212> DNA  
 <213> Pinus radiata

<400> 2105  
 gacctttttgc atctttcatta ttcttccgcc tgtgaaaaga tggggagatc tccgtgctgt 60  
 gagaaggctc atactaacaag agggggcctgg actaaacaag aagacgaccg ccttatcgct 120  
 cacattcgag cccacggcga agggggctgg cgttcgcttc ccaaggccgc agggctgctg 180  
 agatgcggca agagctgcag actgcgatgg ataaactacc tgcgtcccga tctgaagcgt 240  
 ggaagcttca ccgaagaaga agacgagctc atcatcaaac tccactcctt cgttggcaac 300  
 aagtggctct taattgcagg gagattgccc ggacggacgg acaacgagat aaagaactac 360  
 tggaaacacac acatcaaaaag aaaattgctg agcaagggac tgcaccccca aacccatcgt 420  
 cactcggcc agccaaacaa taccctcgct actcggcctg ttctcgagca cgaattccg 480  
 gcattccaga accctgcaac gccggagata gcagacttgt tacagcacca ccgattggaa 540  
 agctcgcta tcaaaccggc agcttcggat gcggaagagc atcccgacct caatctgaat 600  
 ttgtgtatca gtttgccgtc taattcggcc ccggccgtaa acagagtatc gagcgtcgat 660  
 acaacagtag attcaaattc taattctggc gacgggctgt gctggcagtt tctctgacgg 720  
 aggtcgtttc aataagaggg tgtgcattat cgcagcacga ccacgcttat gaccagtgcc 780  
 aaaggcaca ggaactcgtg tggaaagatg tttatagtgc aaagatctcc gacttgctta 840  
 tcgtggaatt gaaataatgt gttggagggc gcagagacgg tgggaaaaag gttttgtgtg 900  
 ttgcaggtct ggagatatgg tggggaagtg tatggataat aggtatttct ataactgca 960  
 attctggtgc aattattcac aacagttagc atttatcaag gaaaaatata cttcgttttg 1020  
 tgttctcagt cgtaggagat ataccagtac cagtacatta tctgcttgca gggtaagtgt 1080  
 aagttcatta cattgcaatg ccggtgcctt atcgccctca tggccgtatt tttaaagaca 1140  
 aatcccacgc tgcctcagcc tgcaacaaga tatctttact ctcattacac tgatacatatc 1200  
 cactgggtcaa aacttcccat cactgtcata ggctggaaca gagaaactga agcctgttca 1260  
 aaattttcaa tacttttaga tctggtaaag aagccaatgt gagaactgca aatttcattg 1320  
 gggcaaaact caggtgtact gtcaaagcat gaaagtccag aatttgatgg tgggatattc 1380  
 aacatacggc agaggtaccc ccaatgatgt agaaagtatt gggctgggtg cctattacca 1440  
 cttgcagtgg tgtaggaaaa agtgtagttc tattgcagga gtgtaataaa tgaggtagat 1500  
 atttttctcc ccgattgatg ttcaatatag actcagcgac gttttatgtg tgttgaaaaa 1560  
 aaaaaaaaaa aaaaaa 1576

<210> 2106  
 <211> 210  
 <212> DNA  
 <213> Pinus radiata

<400> 2106  
 ctatgctatt acagaatgtg cctccagcac tacttgtccg cttcttgccg gaacatcgct 60  
 cagagtgggc tgattgtaac attgatgctt attcttcagc taccatgaaa gcaaattgctt 120  
 acaatgttcc aggttccactg ggaggcatta cagggagtc aagttatcctt ccactggcac 180  
 atactgtgga acatgaagag ttcttggaag 210

<210> 2107  
 <211> 27  
 <212> PRT  
 <213> Pinus radiata

<400> 2107  
 Met Lys His His Val Val His Asn Cys Cys Ser Lys Lys Ala Val Lys  
 1 5 10 15  
 Arg Gly Phe Trp Ser Pro Glu Glu Asp Leu Lys  
 20 25

<210> 2108  
 <211> 126  
 <212> PRT

&lt;213&gt; Eucalyptus grandis

&lt;400&gt; 2108

Gly Ile Ser Arg Asn Phe Val Lys Thr Arg Thr Pro Thr Gln Val Ala  
 1 5 10 15  
 Ser His Ala Gln Lys Tyr Phe Leu Arg Arg Thr Asn Gln Asn Arg Arg  
 20 25 30  
 Arg Arg Arg Ser Ser Leu Phe Asp Ile Thr Thr Asp Ser Tyr Phe Gly  
 35 40 45  
 Val Ser Ser Ser Thr Met Glu Gly His His Gln Ala His Gln Val  
 50 55 60  
 Pro Ser Phe Pro Leu Ser Leu Pro Pro Ala Val Ser Pro Gly Thr Gly  
 65 70 75 80  
 Glu Lys Leu Leu Glu Ser Leu Arg Leu Arg Lys Glu Gly Cys Gln Ser  
 85 90 95  
 Lys Pro Thr Pro Ser Lys Pro Ile Arg Pro Val Pro Ile Leu Pro Ile  
 100 105 110  
 Pro Pro Ser Ser Lys Met Ala Ala Leu Asp Leu Asn Lys Ala  
 115 120 125

&lt;210&gt; 2109

&lt;211&gt; 130

&lt;212&gt; PRT

&lt;213&gt; Eucalyptus grandis

&lt;400&gt; 2109

Met Pro Gly Phe Thr Arg Ala Arg Lys Met Ser Met Ser Gly Glu Glu  
 1 5 10 15  
 Glu Gly Asp Leu Arg Arg Gly Pro Trp Thr Arg Glu Glu Asp Asn Leu  
 20 25 30  
 Leu Ile His Ser Ile Thr Cys His Gly Glu Gly Arg Trp Asn Met Leu  
 35 40 45  
 Ala Lys Ser Ala Gly Leu Lys Arg Thr Gly Lys Ser Cys Arg Leu Arg  
 50 55 60  
 Trp Leu Asn Tyr Leu Arg Pro Asp Ile Lys Arg Gly Asn Leu Thr Pro  
 65 70 75 80  
 Gln Glu Gln Leu Met Ile Leu Glu Leu His His Lys Trp Gly Asn Arg  
 85 90 95  
 Trp Ser Lys Ile Ala Gln Tyr Leu Pro Gly Arg Thr Asp Asn Glu Ile  
 100 105 110  
 Lys Asn Tyr Trp Arg Thr Arg Val Gln Lys Gln Ala Arg Gln Leu Asn  
 115 120 125  
 Ile Glu  
 130

&lt;210&gt; 2110

&lt;211&gt; 146

&lt;212&gt; PRT

&lt;213&gt; Eucalyptus grandis

&lt;400&gt; 2110

Cys Cys Asp Lys Val Gly Leu Lys Lys Gly Pro Trp Thr Pro Glu Glu  
 1 5 10 15  
 Asp Gln Lys Leu Leu Ala Tyr Ile Glu Glu Asn Gly His Gly Ser Trp  
 20 25 30  
 Arg Ala Leu Pro Ser Lys Ala Gly Leu Gln Arg Cys Gly Lys Ser Cys  
 35 40 45  
 Arg Leu Arg Trp Thr Asn Tyr Leu Arg Pro Asp Ile Lys Arg Gly Lys  
 50 55 60  
 Phe Ser Leu Gln Glu Glu Gln Thr Ile Ile Gln Leu His Ala Leu Leu  
 65 70 75 80



[illegible]

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<210> 2111
<211> 99
<212> PRT
<213> Eucalyptus grandis
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[illegible]

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<210> 2112
<211> 59
<212> PRT
<213> Eucalyptus grandis
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	<400> 2112														
Met	Gly	Arg	Gly	Arg	Leu	Gln	Leu	Lys	Arg	Ile	Glu	Asn	Lys	Ile	Asn
1				5					10					15	
Arg	Gln	Val	Thr	Phe	Ser	Lys	Arg	Arg	Ala	Gly	Leu	Leu	Lys	Lys	Ala
			20					25					30		
His	Glu	Ile	Ser	Val	Leu	Cys	Asp	Ala	Glu	Val	Ala	Leu	Ile	Ile	Phe
		35					40					45			
Ser	Ala	Lys	Gly	Lys	Leu	Phe	Glu	Tyr	Ser	Thr					
	50					55									

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<210> 2113
<211> 79
<212> PRT
<213> Eucalyptus grandis
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<div style="display: flex; justify-content: space-between; align-items: center;"> <span>&lt;400&gt;</span> <span>2113</span> </div>															
Val	Lys	His	Asp	Val	Glu	Thr	Leu	Ser	Ser	Lys	Val	Lys	Met	Ala	Glu
1				5					10					15	
Glu	Thr	Val	Lys	Arg	Val	Thr	Gly	Leu	Asn	Pro	Met	Leu	His	Val	Met
			20					25					30		
Ser	Asp	Met	Ser	Ser	Val	Gly	Val	Pro	Pro	Phe	Asp	Gly	Ser	Pro	Ser
		35					40					45			
Asp	Thr	Ser	Ala	Asp	Ala	Ala	Val	Pro	Val	Arg	Asp	Pro	Lys	His	Gln
	50					55					60				

Phe Tyr Gln Thr Asn Ser Ser Asn Pro Ala Ser Ser Ala Asp Asp  
65 70 75

<210> 2114  
<211> 104  
<212> PRT  
<213> Eucalyptus grandis

<400> 2114  
Gln Val Ala Gln Leu Arg Val Glu Asn Ser Thr Leu Leu Lys Arg Leu  
1 5 10 15  
Ser Asp Ile Ser Gln Lys Tyr Asn Val Ala Ala Val Asp Asn Arg Val  
20 25 30  
Leu Glu Ala Asp Val Glu Thr Leu Arg Ala Glu Val Lys Met Ala Glu  
35 40 45  
Glu Thr Val Lys Arg Val Thr Gly Leu Asn Pro Met Leu His Val Met  
50 55 60  
Ser Asp Met Ser Ser Val Gly Val Pro Pro Phe Asp Gly Ser Pro Ser  
65 70 75 80  
Asp Thr Ser Ala Asp Ala Ala Val Pro Val Arg Asp Asp Pro Lys His  
85 90 95  
Gln Phe Tyr Gln Thr Asn Ser Met  
100

<210> 2115  
<211> 71  
<212> PRT  
<213> Eucalyptus grandis

<400> 2115  
Met Gly Arg His Ser Cys Cys Tyr Lys Gln Lys Leu Arg Lys Gly Leu  
1 5 10 15  
Trp Ser Pro Glu Glu Asp Glu Lys Leu Leu Arg Tyr Ile Thr Gln Tyr  
20 25 30  
Gly His Gly Cys Trp Ser Ser Val Pro Lys Leu Ala Gly Leu Gln Arg  
35 40 45  
Cys Gly Lys Ser Cys Arg Leu Arg Trp Ile Asn Tyr Leu Arg Pro Asp  
50 55 60  
Leu Lys Arg Gly Thr Phe Ser  
65 70

<210> 2116  
<211> 55  
<212> PRT  
<213> Eucalyptus grandis

<400> 2116  
Glu Leu Gln His Leu Glu Gln Gln Leu Ser Gly Ala Leu Ser Ser Val  
1 5 10 15  
Lys Glu Lys Lys Glu Gln Trp Leu Leu Glu Gln Leu Glu Arg Ser Arg  
20 25 30  
Leu Gln Glu Gln Arg Ala Met Leu Glu Asn Glu Thr Leu Arg Arg Gln  
35 40 45  
Val Asp Glu Leu Arg Gly Phe  
50 55

<210> 2117  
<211> 62  
<212> PRT  
<213> Eucalyptus grandis

<400> 2117  
 Glu Ile Ser Val Leu Cys Asp Ala Asp Val Ala Leu Ile Val Phe Ser  
 1 5 10 15  
 Thr Lys Gly Lys Leu Phe Glu Tyr Ala Thr Asp Cys Cys Met Glu Arg  
 20 25 30  
 Ile Leu Glu Arg Tyr Glu Arg Tyr Ser Tyr Ala Glu Ser Gln Val Leu  
 35 40 45  
 Thr Asn Asn Ala Glu Thr Asn Gly Asn Trp Thr Leu Glu His  
 50 55 60

<210> 2118  
 <211> 49  
 <212> PRT  
 <213> Eucalyptus grandis

<400> 2118  
 Leu Phe Pro Pro Gln Ser Glu Gly Phe Phe Asn Pro Met Asp Gly Asn  
 1 5 10 15  
 Leu Ser Leu Gln Ile Gly Tyr Asn Pro Thr Cys Leu Asp Glu Met Asn  
 20 25 30  
 Ala Ser Val Ser Ser Gln Asn Val Ala Gly Phe Ile Pro Gly Trp Met  
 35 40 45  
 Leu

<210> 12119  
 <211> 195  
 <212> PRT  
 <213> Eucalyptus grandis

<400> 2119  
 Ser Gly Ser Gln Val Ser Ile Ile Met Ile Ser Ser Thr Gly Lys Leu  
 1 5 10 15  
 His Glu Tyr Ile Ser Pro Ser Thr Ser Thr Lys Lys Met Tyr Asp Gln  
 20 25 30  
 Tyr Gln Gln Ala Leu Glu Val Asp Leu Trp Ser Ser His Tyr Glu Lys  
 35 40 45  
 Met Gln Glu Asn Leu Arg Lys Leu Lys Glu Val Asn Lys Lys Leu Gln  
 50 55 60  
 Leu Glu Val Arg Arg Arg Phe Gly Glu Gly Leu Asn Gly Met Ser Leu  
 65 70 75 80  
 Ser Glu Leu Cys Gly Leu Glu Gln Asp Met Asp Asn Ala Val Ser Leu  
 85 90 95  
 Ile Arg Glu Arg Lys Tyr Lys Thr Leu Gly Asn Gln Ile Asp Thr Ala  
 100 105 110  
 Arg Lys Lys Lys Lys Asn Ala Glu Glu Ile Asn Lys Ser Leu Leu Gln  
 115 120 125  
 Asp Trp Thr Asn Leu Ile Lys His Leu Arg Glu Asp Asp Pro His Phe  
 130 135 140  
 Gly Met Val Asp Asn Gly Arg Asp Tyr Glu Ala Val Ile Gly Tyr Thr  
 145 150 155 160  
 Asp Ala Ala Ala Ala Arg Leu Tyr Thr Leu Arg Leu Gln Pro Asp  
 165 170 175  
 Gln Pro Asn Leu Thr Ser Gly Gly Gly Ser Glu Ile Thr Thr Tyr Pro  
 180 185 190  
 Leu Leu Glu  
 195

<210> 2120  
 <211> 92  
 <212> PRT

&lt;213&gt; Eucalyptus grandis

&lt;400&gt; 2120

```

Met Ala Phe Lys Ser Pro Gly Gly Ile Thr Trp Leu Lys His Leu Leu
 1          5          10          15
Val Lys Asn Phe Tyr Leu Gly Glu His Leu Lys Cys Arg Asn Gly Leu
          20          25          30
Ile Lys Lys Ala Tyr Glu Leu Ser Val Leu Cys Asp Ile Asp Ile Ala
          35          40          45
Leu Ile Met Phe Ser Pro Ser Asp Arg Val Ser His Phe Ser Gly Lys
          50          55          60
Arg Arg Ile Glu Asp Val Leu Thr Arg Phe Ile Asn Leu Thr Asp Gln
65          70          75          80
Glu Arg Thr Leu Leu Asp Val Gln Asp Arg Arg Thr
          85          90

```

&lt;210&gt; 2121

&lt;211&gt; 41

&lt;212&gt; PRT

&lt;213&gt; Eucalyptus grandis

&lt;400&gt; 2121

```

Met Gly Arg Gly Arg Val Gln Leu Lys Arg Ile Glu Asn Lys Ile Asn
 1          5          10          15
Arg Gln Val Thr Phe Ser Lys Arg Arg Asn Gly Leu Leu Lys Lys Ala
          20          25          30
Tyr Glu Leu Ser Leu Leu Cys Asp Ala
          35          40

```

&lt;210&gt; 2122

&lt;211&gt; 96

&lt;212&gt; PRT

&lt;213&gt; Eucalyptus grandis

&lt;400&gt; 2122

```

Leu Gln Tyr Asp Trp His His Leu Ser Phe Cys Val Ile Ile Ser Val
 1          5          10          15
Leu Asn Leu Gln Asn Thr Ile Asn Gly Ser Cys Ser Met Glu Ser Ile
          20          25          30
Leu Glu Arg Tyr Glu Arg Tyr Thr Tyr Ala Glu Arg Gln Gln Val Ala
          35          40          45
Thr Asp Ser Pro Gln Val Gln Gly Ser Trp Ser Leu Glu Tyr Pro Lys
          50          55          60
Leu Val Ala Arg Ile Glu Val Leu Gln Arg Asn Ile Arg Asn Leu Ser
65          70          75          80
Gly Glu Glu Leu Asp Pro Leu Ser Leu Arg Glu Leu Gln Tyr Leu Glu
          85          90          95

```

&lt;210&gt; 2123

&lt;211&gt; 76

&lt;212&gt; PRT

&lt;213&gt; Eucalyptus grandis

&lt;400&gt; 2123

```

Phe Leu Phe Arg Arg Lys Gln Gly Ala Val Glu Glu Leu Lys Met Val
 1          5          10          15
Gln Glu Val Arg Lys Gly Pro Trp Thr Glu Gln Glu Asp Phe Gln Leu
          20          25          30
Val Cys Phe Val Gly Leu Phe Gly Asp Arg Arg Trp Asp Phe Ile Ala
          35          40          45
Lys Val Ser Gly Leu Lys Val Ala Gly Glu Asn Asn Arg Tyr Val Arg

```

50 55 60  
Phe Lys Ala Trp Gly Phe Phe Gly Arg Ser Tyr Phe  
65 70 75

```
<210> 2124
<211> 55
<212> PRT
<213> Eucalyptus grandis
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	<400>	2124													
Met	Gly	Arg	Ser	Pro	Cys	Cys	Glu	Lys	Ala	His	Thr	Asn	Lys	Gly	Ala
1				5					10					15	
Trp	Thr	Lys	Glu	Asp	Gln	Arg	Leu	Ile	Asp	Tyr	Ile	Arg	Leu	His	
			20				25					30			
Gly	Glu	Gly	Cys	Trp	Arg	Ser	Leu	Pro	Lys	Ser	Ala	Gly	Leu	Leu	Arg
		35					40					45			
Cys	Gly	Lys	Ser	Cys	Arg	Leu									
	50					55									

```
<210> 2125
<211> 123
<212> PRT
<213> Eucalyptus grandis
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<div>&lt;400&gt; 2125</div>															
Val 1	Glu	Gln	Val 5	Gln	Phe	Leu	Glu	Lys	Ser 10	Phe	Glu	Val	Glu 15	Asn	Lys
Leu	Glu	Pro	Asp 20	Arg	Lys	Ile	Gln	Leu 25	Ala	Lys	Asp	Leu	Gly 30	Leu	Gln
Pro	Arg	Gln 35	Val	Ala	Ile	Trp	Phe 40	Gln	Asn	Arg	Arg	Ala 45	Arg	Trp	Lys
Thr 50	Lys	Gln	Leu	Glu	Lys	Asp 55	Tyr	Glu	Thr	Leu	Gln 60	Ala	Ser	Phe	Asn
Thr 65	Leu	Lys	Ser	Asp	Tyr 70	Asp	Thr	Leu	Ile 75	Lys	Glu	Arg	Asn	Asp	Leu 80
Lys	Ala	Glu	Val 85	Leu	Asn	Leu	Thr	Asp 90	Lys	Leu	Leu	His	Lys 95	Gly	Asn
Glu	Lys	Glu	Ser 100	Ser	Glu	Ser	Ser	Ser 105	Lys	Ser	Ser	Gln	Gly 110	Leu	Phe
Gln	Asn	Pro 115	Ile	Ala	Asp	Ser	Val 120	Ser	Glu	Asp					

```
<210> 2126
<211> 105
<212> PRT
<213> Eucalyptus grandis
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	<400> 2126														
Met	Ala	Arg	Phe	Pro	Arg	Val	Asp	Lys	Ser	Asn	Ser	Lys	Lys	Thr	Val
1				5					10					15	
Lys	Lys	Gly	Ala	Trp	Ser	Ala	Glu	Glu	Asp	Gln	Lys	Leu	Val	Ala	Tyr
			20					25					30		
Ile	Lys	Arg	Tyr	Gly	Ile	Trp	Asn	Trp	Thr	His	Met	Ala	Glu	Pro	Ala
		35					40					45			
Gly	Leu	Ala	Arg	Thr	Gly	Lys	Ser	Cys	Arg	Leu	Arg	Trp	Met	Asn	Tyr
	50					55					60				
Leu	Arg	Pro	Asn	Ile	Lys	His	Gly	Asn	Ile	Thr	Gln	Glu	Glu	Glu	Glu
65				70						75				80	
Ile	Ile	Ile	Asn	Leu	His	Arg	Val	Leu	Gly	Asn	Arg	Trp	Ala	Ser	Ile
			85						90					95	
Ala	Ser	Arg	Leu	Ser	Gly	Arg	Thr	Asp							

100

105

<210> 2127  
 <211> 115  
 <212> PRT  
 <213> Eucalyptus grandis

<400> 2127  
 Met Ala Arg Glu Lys Ile Lys Ile Lys Lys Ile Asp Asn Val Thr Ala  
 1 5 10 15  
 Arg Gln Val Thr Phe Ser Lys Arg Arg Gly Leu Phe Lys Lys Ala  
 20 25 30  
 Gly Glu Leu Ser Val Leu Cys Asp Ala Glu Val Ala Val Val Ile Phe  
 35 40 45  
 Ser Ala Thr Gly Lys Leu Phe Glu Tyr Ser Ser Ser Met Lys Asp  
 50 55 60  
 Thr Leu Glu Arg Tyr Thr Leu His His Asn Asn Leu Glu Asn Met Asp  
 65 70 75 80  
 Gln Pro Ser Leu Glu Leu Gln Leu Glu His Ser Asn Asn Met Arg Leu  
 85 90 95  
 Ser Lys Glu Val Ala Glu Lys Ser His Arg Leu Arg Gln Leu Arg Gly  
 100 105 110  
 Glu Asp Leu  
 115

<210> 2128  
 <211> 155  
 <212> PRT  
 <213> Eucalyptus grandis

<400> 2128  
 Met Gly Arg Lys Cys Ser Arg Cys Gly Asn Ile Gly His Asn Ser Arg  
 1 5 10 15  
 Thr Cys Thr Thr Phe Met Gly Ala Ala Ser Ala Cys Gly Leu Lys Leu  
 20 25 30  
 Phe Gly Val Gln Leu Asp Leu Ser Ser Ser Pro Pro Ser Ser Ser  
 35 40 45  
 Ala Ser Ser Gly Ser Ala His Pro Tyr Ser Leu Val Ile Lys Lys Ser  
 50 55 60  
 Leu Ser Met Asp Arg Leu Ser Ser Ser Ser Ala Ser Ser Ser Pro  
 65 70 75 80  
 Ser Ser Ser Leu Ser Ser Pro Arg Val Leu Ala Asp Glu His Cys Asn  
 85 90 95  
 Lys Thr Ser Leu Gly Tyr Leu Ser Asp Gly Leu Ala Ala Arg Ser Gln  
 100 105 110  
 Glu Lys Arg Lys Gly Val Pro Trp Thr Glu Glu Glu His Arg Thr Phe  
 115 120 125  
 Leu Met Gly Leu Glu Lys Met Gly Lys Gly Asp Trp Arg Gly Ile Ser  
 130 135 140  
 Arg Asn Tyr Val Thr Thr Arg Thr Pro Thr Gln  
 145 150 155

<210> 2129  
 <211> 145  
 <212> PRT  
 <213> Eucalyptus grandis

<400> 2129  
 Arg Gly Trp Arg Gln Ile Glu Glu His Val Gly Thr Lys Thr Ala Val  
 1 5 10 15  
 Gln Ile Arg Ser His Ala Gln Lys Phe Phe Ser Lys Val Ala Arg Gly

```

      20      25      30
Val Ser Gly Ser Ser Glu Gly Val Ile Lys Pro Ile Glu Ile Pro Pro
      35      40      45
Pro Arg Pro Lys Arg Lys Pro Met His Pro Tyr Pro Arg Lys Ser Val
      50      55      60
Asp Ser Lys Glu Val Lys Leu Ser Tyr Gln Gln Glu Arg Ser Pro Ser
65      70      75      80
Pro Ile Ser Ser Val Ala Asp Glu Asn Thr Gly Ser Pro Thr Ser Val
      85      90      95
Leu Ser Ala His Gly Ser Asp Met Leu Gly Ser Ala Ser Leu His Gln
      100      105      110
Gln Asn Arg Cys Ser Ser Pro Thr Ser Cys Thr Thr Asp Val Pro Ser
      115      120      125
Ile Gly Leu Ala Val Ile Glu Lys Gln Pro Glu Ile Phe Lys Glu Glu
      130      135      140
Asp
145

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<210> 2130
<211> 156
<212> PRT
<213> Eucalyptus grandis

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      <400> 2130
Phe Gly His Glu Phe Thr Ser Ser Pro Ala Ser Ser Ser Ser Leu Ser
1      5      10      15
Ser Ser Arg Ile Ser Ile Gly Glu Asn Ser Asp Lys Ala Ser Leu Gly
      20      25      30
Tyr Leu Ser Asp Gly Leu Leu Gly Arg Ser Gln Glu Lys Lys Gly
      35      40      45
Val Pro Trp Thr Glu Glu Glu His Arg Thr Phe Leu Val Gly Leu Glu
      50      55      60
Lys Leu Gly Lys Gly Asp Trp Arg Gly Ile Ser Arg Ser Tyr Val Thr
65      70      75      80
Thr Arg Thr Pro Ala Gln Val Ala Ser His Ala Gln Lys Tyr Phe Leu
      85      90      95
Arg Gln Val Ser Phe Asn Lys Lys Lys Arg Arg Ser Ser Leu Phe Asp
      100      105      110
Met Val Asp Val Lys Thr Ala Ala Gly Asp Arg Leu Gly Ser Leu Thr
      115      120      125
Ala Lys Pro Ser Glu Ser Val Pro Asn Cys Lys Met Gly Thr Leu Met
      130      135      140
Ser His Leu Gln Val His Asp Ala Arg Thr Thr Gln
145      150      155

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<210> 2131
<211> 49
<212> PRT
<213> Eucalyptus grandis

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      <400> 2131
Met Val Gln Glu Val Arg Lys Gly Pro Trp Thr Glu Gln Glu Asp Phe
1      5      10      15
Gln Leu Val Cys Phe Val Gly Leu Phe Gly Asp Arg Arg Trp Asp Phe
      20      25      30
Ile Ala Lys Val Ser Gly Leu Lys Val Ala Gly Glu Asn Asn Arg Ile
      35      40      45
Glu

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<210> 2132

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<211> 151  
 <212> PRT  
 <213> Eucalyptus grandis

<400> 2132  
 Asp Asp Val Cys Gly Gly Gly Lys Arg Pro Glu Arg Pro Phe Phe Cys  
 1 5 10 15  
 Thr Tyr Asp Gly Glu Glu Asn Gly Asp Asp Asp Tyr Asp Glu Tyr Leu  
 20 25 30  
 His Gln Pro Glu Lys Lys Arg Arg Leu Ser Ile Glu Gln Val Leu Tyr  
 35 40 45  
 Leu Glu Lys Ser Phe Glu Thr Asp Asn Lys Leu Glu Pro Asp Lys Lys  
 50 55 60  
 Val Gln Leu Ala Lys Glu Leu Gly Leu Gln Pro Arg Gln Val Ala Ile  
 65 70 75 80  
 Trp Phe Gln Asn Arg Arg Ala Arg Trp Lys Thr Lys Gln Met Glu Lys  
 85 90 95  
 Asp Phe Asp Lys Leu Gln Ala Ser Phe Asn Cys Leu Lys Ser Asp Tyr  
 100 105 110  
 Glu Ser Leu Leu Asn Glu Lys Glu Lys Leu Lys Ala Glu Val Ile His  
 115 120 125  
 Leu Thr His Gln Leu Glu Gln Arg Ser Asn Gly Ile Leu Asn His Ser  
 130 135 140  
 Thr Tyr Leu Asn Asn Cys Thr  
 145 150

<210> 2133  
 <211> 133  
 <212> PRT  
 <213> Eucalyptus grandis

<400> 2133  
 Met Gly Ser Arg Thr Arg Val Gly Gly Gly Gly Asp Asp Gly Arg Val  
 1 5 10 15  
 Val Asn Gly Met Pro Ser Phe Val Pro Gln Leu Pro Thr Ser Asn Ser  
 20 25 30  
 Met Gly Ser Glu Gly Asn Ser Ile Arg Ser Ser Arg Ile Thr Asp Phe  
 35 40 45  
 Gly Thr Leu Glu Gln Ser Leu Gly Tyr Arg Ile Glu Asp Ala Val Asp  
 50 55 60  
 Leu Ser Arg Asn Pro Val Phe Asn Gln Met Lys Ser Ser Ala Gln Ala  
 65 70 75 80  
 Leu Gly Ala Asp Val Gln Phe Gly Ser Leu Asn Lys Ser Leu Ser Ser  
 85 90 95  
 Ser Asp Arg Asn Leu Ser Val Asn Ile Val Gly Ser Gln Thr Leu Ser  
 100 105 110  
 Met His Arg Glu Ser Gln Ser Asn Leu Val Ser Ile Pro Gly Ala His  
 115 120 125  
 Arg Glu Asn Trp Gly  
 130

<210> 2134  
 <211> 150  
 <212> PRT  
 <213> Eucalyptus grandis

<400> 2134  
 Met Pro Pro Pro Arg Ala Ala Thr Pro Asp Val Ala Gly Asp Glu Ser  
 1 5 10 15  
 Ser Gly Ala Asp Ala Gly Ala Gly Glu Ile Met Leu Phe Gly Val Arg  
 20 25 30



Val Val Val Asp Ser Met Arg Lys Cys Val Ser Leu Asn Asn Leu Ser  
           35                  40                  45  
 Gln Tyr Gln His Pro Gln Asp Ala Asn Pro Pro Asn Ala Ser Gly Gly  
       50                  55                  60  
 Ser Gly Gly Asn Lys Glu Ala Ala Lys Gly Tyr Ala Ser Ala Asp  
 65                  70                  75                  80  
 Asp Ala Ala His Asn Pro Gly Gly Gly Arg Glu Arg Lys Arg Gly Val  
           85                  90                  95  
 Pro Trp Thr Glu Glu Glu His Arg Leu Phe Leu Leu Gly Leu Gln Lys  
           100                  105  
 Val Gly Lys Gly Asp Trp Arg Ala Ile Ser Arg Asn Phe Val Lys Thr  
       115                  120                  125  
 Arg Thr Pro Thr Gln Val Ala Ser His Ala Gln Lys Tyr Phe Leu Arg  
       130                  135                  140  
 Arg Ser Asn Leu Asn Arg  
 145                  150

<210> 2135  
 <211> 125  
 <212> PRT  
 <213> Eucalyptus grandis

<400> 2135  
 Glu Asn Val Ala Ser Gly Ser Thr Glu Arg Pro Arg Ile Arg His Gln  
   1                  5                  10                  15  
 His Ser Gln Ser Met Asp Gly Ser Thr Ser Ile Lys Pro Glu Met Leu  
       20                  25                  30  
 Met Ser Gly Ser Glu Asp Ala Ser Ala Ala Asp Ala Lys Lys Ala Met  
       35                  40                  45  
 Ser Ala Ala Lys Leu Ala Glu Leu Ala Leu Ile Asp Pro Lys Arg Ala  
       50                  55                  60  
 Lys Arg Ile Trp Ala Asn Arg Gln Ser Ala Ala Arg Ser Lys Glu Arg  
 65                  70                  75                  80  
 Lys Met Arg Tyr Ile Ala Glu Leu Glu Arg Lys Val Gln Thr Leu Gln  
           85                  90                  95  
 Thr Glu Ala Thr Thr Leu Ser Ala Gln Leu Thr Leu Leu Gln Arg Asp  
           100                  105                  110  
 Thr Asn Gly Leu Thr Ala Glu Asn Ser Glu Leu Lys Leu  
       115                  120                  125

<210> 2136  
 <211> 72  
 <212> PRT  
 <213> Eucalyptus grandis

<400> 2136  
 Met Ala Asp Ser Glu His Ser Ser Ser Asp Asp Thr Tyr Val Asp Ser  
   1                  5                  10                  15  
 Arg Glu Glu Thr Ser Glu Glu Ser Lys Leu Asp Phe Ser Glu Asp Glu  
       20                  25                  30  
 Glu Thr Leu Val Ile Arg Met Tyr Asn Leu Val Gly Glu Arg Trp Ser  
       35                  40                  45  
 Leu Ile Ala Gly Arg Ile Pro Gly Arg Thr Ala Glu Glu Ile Glu Lys  
       50                  55                  60  
 Tyr Trp Asn Ser Arg Tyr Ser Thr  
 65                  70

<210> 2137  
 <211> 135  
 <212> PRT  
 <213> Eucalyptus grandis

&lt;400&gt; 2137

```

Met Ala Gly Glu Glu Pro Tyr Ser Ala Asp Thr Asn Ser Asp Thr Phe
 1          5          10          15
Ala Asp Glu Glu Thr Leu Ile Pro Ser Ser Ser Glu Ala Leu Glu Ser
          20          25          30
Ala Trp Val Pro Thr Ser Ser Thr Ala His His Gly Ser Lys Ser Val
          35          40          45
Val Asn Phe Glu Asp Val Cys Gly Gly Gly Asp Thr Asn Thr Ala Pro
          50          55          60
Arg Pro Tyr Leu Arg Gln Ile Asp Leu Lys Glu Glu Ala Val Glu Glu
65          70          75          80
Asp Tyr Gly Asp Gly Asn Phe Gln Pro Pro Gly Lys Lys Arg Arg Leu
          85          90          95
Ser Ala Asp Gln Val His Phe Leu Glu Arg His Phe Glu Val Glu Asn
          100          105          110
Lys Leu Glu Pro Glu Arg Lys Ile Gln Leu Ala Lys Asp Leu Gly Leu
          115          120          125
Gln Pro Arg Gln Val Ala Ile
          130          135

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&lt;210&gt; 2138

&lt;211&gt; 123

&lt;212&gt; PRT

&lt;213&gt; Eucalyptus grandis

&lt;400&gt; 2138

```

Asp Thr Glu Asp Ser Lys Lys Lys Glu Arg His Ile Val Thr Trp Ser
 1          5          10          15
Gln Glu Glu Asp Asp Ile Leu Arg Glu Gln Ile Gly Ile His Gly Thr
          20          25          30
Glu Asn Trp Ser Ile Ile Ala Ser Lys Phe Lys Asp Lys Thr Thr Arg
          35          40          45
Gln Cys Arg Arg Arg Trp Tyr Thr Tyr Leu Asn Ser Asp Phe Lys Lys
          50          55          60
Gly Gly Trp Ser Pro Glu Glu Asp Val Leu Leu Cys Glu Ala Gln Lys
65          70          75          80
Ile Phe Gly Asn Arg Trp Thr Glu Ile Ala Lys Val Val Ser Gly Arg
          85          90          95
Thr Asp Asn Ala Val Lys Asn Arg Phe Thr Thr Leu Cys Lys Lys Arg
          100          105          110
Ala Arg Tyr Glu Ala Leu Ala Lys Glu Asn Thr
          115          120

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&lt;210&gt; 2139

&lt;211&gt; 126

&lt;212&gt; PRT

&lt;213&gt; Eucalyptus grandis

&lt;400&gt; 2139

```

Met Gly Arg Gln Pro Cys Cys Asp Lys Leu Gly Val Lys Lys Gly Pro
 1          5          10          15
Trp Thr Ala Glu Glu Asp Arg Lys Leu Val Asn Phe Ile Leu Thr His
          20          25          30
Gly Gln Cys Cys Trp Arg Ala Val Pro Lys Leu Ala Gly Leu Arg Arg
          35          40          45
Cys Gly Lys Ser Cys Arg Leu Arg Trp Thr Asn Tyr Leu Arg Pro Asp
          50          55          60
Leu Lys Arg Gly Leu Leu Asn Glu Ala Glu Glu Ser Leu Val Ile Asp
65          70          75          80
Leu His Ala Thr Leu Gly Asn Arg Trp Ser Lys Ile Ala Ala Arg Leu

```

				85					90				95				
Pro	Gly	Arg	Thr	Asp	Asn	Glu	Ile	Lys	Asn	His	Trp	Asn	Thr	His	Ile		
			100					105					110				
Lys	Lys	Lys	Leu	Ile	Arg	Met	Gly	Ile	Asp	Pro	Val	Thr	His				
		115					120					125					

&lt;210&gt; 2140

&lt;211&gt; 108

&lt;212&gt; PRT

&lt;213&gt; Eucalyptus grandis

&lt;400&gt; 2140

Pro	Gly	Ser	Arg	Ser	Ser	Asn	Arg	Arg	Val	Glu	Arg	Lys	Lys	Gly	Asn		
1				5					10					15			
Pro	Trp	Thr	Glu	Glu	Glu	His	Arg	Arg	Phe	Leu	Ile	Gly	Leu	Gln	Lys		
			20					25					30				
Leu	Gly	Lys	Gly	Asp	Trp	Arg	Gly	Ile	Ala	Arg	Asp	Phe	Val	Thr	Thr		
		35					40					45					
Arg	Thr	Pro	Thr	Gln	Val	Ala	Ser	His	Ala	Gln	Lys	Tyr	Tyr	Ile	Arg		
		50				55					60						
Gln	Ser	Asn	Ala	Gly	Arg	Arg	Lys	Arg	Arg	Ser	Ser	Leu	Phe	Asp	Met		
65				70						75					80		
Ala	Pro	Asp	Met	Val	Cys	Leu	Leu	Tyr	Asp	Val	Ala	Ser	Ala	His	Ser		
				85					90					95			
Leu	His	Ser	Val	Gln	Ile	Ser	Gly	Ser	Cys	Met	Phe						
			100					105									

&lt;210&gt; 2141

&lt;211&gt; 109

&lt;212&gt; PRT

&lt;213&gt; Eucalyptus grandis

&lt;400&gt; 2141

Met	Arg	Lys	Pro	Cys	Cys	Asp	Lys	Gln	Asp	Thr	Asn	Lys	Gly	Ala	Trp		
1				5					10					15			
Ser	Lys	Gln	Glu	Asp	Gln	Lys	Leu	Ile	Asp	Tyr	Ile	Arg	Lys	His	Gly		
			20					25					30				
Glu	Gly	Cys	Trp	Arg	Thr	Leu	Pro	Lys	Ala	Ala	Gly	Leu	Leu	Arg	Cys		
		35					40					45					
Gly	Lys	Ser	Cys	Arg	Leu	Arg	Trp	Ile	Asn	Tyr	Leu	Arg	Pro	Asp	Leu		
		50				55					60						
Lys	Arg	Gly	Asn	Phe	Ala	Glu	Asp	Glu	Glu	Asp	Leu	Ile	Ile	Lys	Leu		
65				70						75					80		
His	Ala	Leu	Leu	Gly	Asn	Arg	Trp	Ser	Leu	Ile	Ala	Gly	Arg	Leu	Pro		
				85					90					95			
Gly	Arg	Thr	Asp	Asn	Glu	Val	Lys	Asn	Tyr	Trp	Asn	Ser					
			100					105									

&lt;210&gt; 2142

&lt;211&gt; 65

&lt;212&gt; PRT

&lt;213&gt; Eucalyptus grandis

&lt;400&gt; 2142

Ser	Pro	Glu	Glu	Asp	Glu	Lys	Leu	Phe	Asn	Tyr	Ile	Thr	Arg	Phe	Gly		
1				5					10					15			
Val	Gly	Cys	Trp	Ser	Ser	Val	Pro	Lys	Leu	Ala	Gly	Leu	Gln	Arg	Cys		
			20					25					30				
Gly	Lys	Ser	Cys	Arg	Leu	Arg	Trp	Ile	Asn	Tyr	Leu	Arg	Pro	Asp	Leu		
		35					40					45					
Lys	Arg	Gly	Met	Phe	Ser	Gln	Glu	Glu	Glu	Asp	Leu	Ile	Val	Ser	Leu		

50  
 His  
 65

55

60

<210> 2143  
 <211> 121  
 <212> PRT  
 <213> Pinus radiata

<400> 2143  
 Ala Lys Ser Tyr Leu Gly Ser Leu Thr Glu Thr Ile Gln Ser Leu Asn  
 1 5 10 15  
 Ala Glu Leu Glu Arg Thr Arg Ser Glu Leu Val Glu Ala Lys Lys Arg  
 20 25 30  
 Glu Glu Glu Ile Ile Ser Lys Glu Ala Glu Arg Val Glu Lys Asn Lys  
 35 40 45  
 Arg Glu Val Glu Asn Leu Glu Leu Asn Leu Leu Gln Thr Thr Ala Glu  
 50 55 60  
 Ala Gly Arg Ala Lys Leu Glu Leu Glu Thr Ala Tyr Glu Glu Val Gln  
 65 70 75 80  
 Ser Ala Arg Leu Glu Thr Ala Gln Leu Arg Ala Ala Leu Glu Ala Thr  
 85 90 95  
 Glu Gly Lys Phe Glu Ala Met Leu Ser Glu Thr Arg Leu Glu Ala Glu  
 100 105 110  
 His Val Lys Gly Ala Ile Glu Lys Tyr  
 115 120

<210> 2144  
 <211> 71  
 <212> PRT  
 <213> Pinus radiata

<400> 2144  
 Glu Ile Leu Val Thr Gln Ile Glu Gln Leu Gln Arg Lys Glu Arg Met  
 1 5 10 15  
 Phe Ser Glu Glu Asn Asn Phe Leu Arg Lys Arg Ile Val Asp Pro His  
 20 25 30  
 Ser Val Leu Thr Thr Pro Ala Ser Gly Ser Gly Ser Leu Gln Arg Ser  
 35 40 45  
 Glu Val Glu Thr Gln Leu Val Met Arg Pro Pro Ser Ser Asn Ala Asp  
 50 55 60  
 Phe Leu Phe Asn Ser Ser His  
 65 70

<210> 2145  
 <211> 110  
 <212> PRT  
 <213> Pinus radiata

<400> 2145  
 Ser Leu Val Trp Gly Ala Leu Lys Met Gly Lys Thr Lys Met Glu Ile  
 1 5 10 15  
 Lys Arg Ile Gln Asn Pro Ser Arg Arg Gln Val Thr Phe Ser Lys Arg  
 20 25 30  
 Lys Asn Gly Leu Leu Lys Lys Ala Phe Glu Leu Ser Val Leu Cys Asp  
 35 40 45  
 Ala Glu Val Ala Leu Ile Ile Phe Ser Glu Thr Gly Lys Ile Cys Glu  
 50 55 60  
 Phe Ala Ser His Asp Asp Met Ala Thr Ile Leu Glu Lys Tyr Arg Ile  
 65 70 75 80  
 Tyr Thr Glu Thr His Gly Asn Met Glu Ser Ser Ser Val Gln Ser Val

85 90 95  
 Lys Ile Gly Glu Ser Gln Leu Lys Ala Leu Arg Glu Lys Met  
 100 105 110

<210> 2146  
 <211> 50  
 <212> PRT  
 <213> Pinus radiata

<400> 2146  
 Leu Arg Gly Ala Asn Gly Cys Thr Ile Pro Ser Ile Gly Leu Thr Ser  
 1 5 10 15  
 Ile Glu Arg Val Glu Val Gln Thr Gln Leu Val Met Arg Pro Pro His  
 20 25 30  
 Ala Thr Glu Met Asp Asp Asn Phe Met Asp Val Asp Asn Val Pro Leu  
 35 40 45  
 Ser Gly  
 50

<210> 2147  
 <211> 168  
 <212> PRT  
 <213> Pinus radiata

<400> 2147  
 Glu Asp Gly Ser Leu Val Ile Cys Glu Arg Ser Leu Ser Ala Ala Gln  
 1 5 10 15  
 Gly Met Pro Met Val Ser Gln Ser Gln Ser Phe Val His Gly Glu Leu  
 20 25 30  
 Leu Ser Ser Gly Tyr Leu Ile Arg Pro Cys Glu Gly Arg Gly Ala Leu  
 35 40 45  
 Val Ile Met Val Asp His Arg Asn Leu Glu Ala Ser Ser Val Pro Glu  
 50 55 60  
 Ala Leu Arg Pro Leu Tyr Glu Ser Ser Thr Phe Ala Gln Lys Met  
 65 70 75 80  
 Thr Val Glu Ala Ser Tyr His Leu Gln Gly Lys Val Gln Pro Glu Met  
 85 90 95  
 Ile Ser Leu Ser Lys Lys Leu Gln Gln Pro Cys Asn Val Arg Ser Tyr  
 100 105 110  
 Ser Gln Arg Leu Cys Arg Gly Phe Asn Glu Ala Val Asn Thr Leu Pro  
 115 120 125  
 Asp Asp Gly Trp Met Ser Leu Ser Lys Asp Gly Leu Gly Asp Val Thr  
 130 135 140  
 Ile Cys Glu Ser Phe Val Lys Leu Pro Glu Pro Asn Ala Ser Gln Ile  
 145 150 155 160  
 Ala Tyr Val Asn Ser Met Gly Thr  
 165

<210> 2148  
 <211> 120  
 <212> PRT  
 <213> Pinus radiata

<400> 2148  
 Glu Asn Glu Ser Leu Arg Ala Arg Leu Arg His Met Asn Gly Asp Asp  
 1 5 10 15  
 Ile Asn Ser Leu Lys Leu Pro Glu Leu Phe His Leu Glu Gln Gln Leu  
 20 25 30  
 Glu Thr Ala Ala Thr Gln Val Arg Arg Arg Lys Asp Gln Val Leu Asp  
 35 40 45  
 Asn Glu Lys Ile Lys Arg Arg Asn Lys Met Arg Arg Lys Glu Asp Glu

	50					55					60					
Asn	Ile	Ile	Leu	His	Glu	Met	Leu	Asp	Gln	His	His	Gly	Gln	Met	Glu	
65					70					75					80	
Glu	Asp	Asn	Ala	Gln	Ile	Asn	Phe	Leu	Phe	Cys	Gln	Pro	Leu	Asn	Arg	
				85					90					95		
Ser	Asp	Thr	Thr	Phe	Pro	Ala	Ser	Leu	Leu	Arg	Leu	Gln	Pro	Asn	Gln	
			100					105					110			
Pro	Asn	Leu	Gln	Asp	Ile	Gly	Tyr									
		115					120									

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<210> 2149
<211> 165
<212> PRT
<213> Pinus radiata
```

[illegible]

```
<210> 2150
<211> 68
<212> PRT
<213> Pinus radiata
```

[illegible]

```
<210> 2151
<211> 152
<212> PRT
<213> Pinus radiata
```

<400> 2151  
 Gln Ala Gly Leu Gln Arg Cys Gly Lys Ser Cys Arg Leu Arg Trp Ile  
 1 5 10 15  
 Asn Tyr Leu Arg Pro Asp Leu Lys Arg Gly Thr Phe Ser Pro Gln Glu  
 20 25 30  
 Glu Asn Leu Ile Val Glu Leu His Ser Val Leu Gly Asn Arg Trp Ser  
 35 40 45  
 Gln Ile Ala Thr His Leu Pro Gly Arg Thr Asp Asn Glu Ile Lys Asn  
 50 55 60  
 Leu Trp Asn Ser Cys Ile Lys Lys Lys Leu Arg Gln Arg Gly Ile Asp  
 65 70 75 80  
 Pro Asn Thr His Arg Pro Leu Ser Glu Val Asn Ala Glu Ala Gly Asp  
 85 90 95  
 Ser Lys Asn Asp Asn Ser Asn Lys Glu Val Glu Thr Gln Ala Ala Met  
 100 105 110  
 Asp Glu Ser His Val Ser Ala Gly Asn Glu Phe Lys His Leu Asn Ala  
 115 120 125  
 Ile Pro Arg Ala Asp Thr Ala Asn Pro Lys Phe Phe His Val Pro Val  
 130 135 140  
 Glu Asp Asn Thr Leu Ile Ala Ser  
 145 150

<210> 2152  
 <211> 89  
 <212> PRT  
 <213> Pinus radiata

<400> 2152  
 Met Arg Cys Thr Arg Trp Gln Gly Leu Pro Phe Ser Ser Lys Pro Lys  
 1 5 10 15  
 Val Lys Lys Gly Leu Trp Ser Pro Glu Glu Asp Glu Lys Leu Ile Asn  
 20 25 30  
 Tyr Met Met Lys Asn Gly Leu Leu Gly Cys Ser Trp Ser Tyr Val Ala  
 35 40 45  
 Lys Gln Ile Gly Leu Gln Arg Cys Gly Lys Ser Cys Arg Leu Arg Trp  
 50 55 60  
 Thr Asn Tyr Leu Arg Pro Gly Leu Lys Arg Gly Ala Ile Ser Pro Glu  
 65 70 75 80  
 Glu Glu Gln Leu Ile Ile His Leu Gln  
 85

<210> 2153  
 <211> 94  
 <212> PRT  
 <213> Pinus radiata

<400> 2153  
 Met Gly Arg Ala Pro Cys Cys Asp Lys Ala Asn Val Lys Lys Gly Pro  
 1 5 10 15  
 Trp Ser Pro Glu Glu Asp Thr Lys Leu Lys Ala Phe Ile Glu Gln His  
 20 25 30  
 Gly Thr Gly Gly Asn Trp Ile Ala Leu Pro Gln Lys Ala Gly Leu Lys  
 35 40 45  
 Arg Cys Gly Lys Ser Cys Arg Leu Arg Trp Leu Asn Tyr Leu Arg Pro  
 50 55 60  
 Asp Ile Arg His Gly Gly Phe Ser Glu Asp Glu Asp Asn Ile Ile Cys  
 65 70 75 80  
 Ser Leu Tyr Ala Ser Ile Gly Ser Met Val Ser Ile Ile Ala  
 85 90

<210> 2154

<211> 217  
 <212> PRT  
 <213> Pinus radiata

<400> 2154  
 Met Val Arg Gly Lys Thr Gln Met Lys Arg Ile Glu Asn Asp Thr Ser  
 1 5 10 15  
 Arg Gln Val Thr Phe Ser Lys Arg Arg Asn Gly Leu Leu Lys Lys Ala  
 20 25 30  
 Tyr Glu Leu Ser Val Leu Cys Asp Ala Glu Val Gly Leu Ile Ile Phe  
 35 40 45  
 Ser Pro Arg Gly Lys Leu Tyr Glu Phe Ala Ser Pro Ser Met Glu Glu  
 50 55 60  
 Ile Leu Glu Lys Tyr Lys Lys Arg Ser Lys Glu Asn Gly Met Ala Gln  
 65 70 75 80  
 Thr Thr Lys Glu Gln Asp Thr Gln Tyr Ser Lys His Ser Lys Gln Lys  
 85 90 95  
 Leu Ala Asn Met Glu Glu Gln Ile Arg Ile Leu Glu Ser Thr Gln Arg  
 100 105 110  
 Lys Met Leu Gly Glu Gly Leu Glu Ser Cys Ser Met Ala Glu Leu Asn  
 115 120 125  
 Lys Leu Glu Ser Gln Ala Glu Arg Gly Leu Ser His Ile Arg Ala Arg  
 130 135 140  
 Lys Thr Glu Ile Leu Val Asp Gln Ile Glu Cys Leu Lys Arg Lys Glu  
 145 150 155 160  
 Arg Leu Leu Ser Glu Glu Asn Ala Leu Leu Ser Arg Lys Trp Val Asp  
 165 170 175  
 Arg Gln Ser Val Asp Gly Ser Gly Ser Thr Ser Ser Ser Ile Gly Leu  
 180 185 190  
 Gly Ser Ile Glu Gln Ile Glu Val Glu Thr Gln Leu Val Ile Arg Pro  
 195 200 205  
 Pro Asn Ala Gln Asp His Cys Ser Val  
 210 215

<210> 2155  
 <211> 113  
 <212> PRT  
 <213> Pinus radiata

<400> 2155  
 Leu Gly Trp Gly Arg Gln Pro Ala Ala Leu Arg Thr Phe Ser Gln Arg  
 1 5 10 15  
 Leu Cys Lys Gly Phe Asn Glu Ala Val Asn Gly Phe Thr Asp Asp Gly  
 20 25 30  
 Trp Ser Leu Met Gly Asn Asp Gly Met Glu Asp Val Thr Ile Leu Val  
 35 40 45  
 Asn Ser Ser Pro Ser Lys Leu Phe Gly Gln Gln Phe Ala Ser Ser Asp  
 50 55 60  
 Gly Leu Pro Ala Leu Gly Gly Gly Ile Leu Cys Ala Lys Ala Ser Met  
 65 70 75 80  
 Leu Leu Gln Asn Val Pro Pro Ala Leu Leu Val Arg Phe Leu Arg Glu  
 85 90 95  
 His Arg Ser Glu Trp Ala Asp Ser Asn Ile Asp Ala Tyr Ser Ala Ala  
 100 105 110  
 Ser

<210> 2156  
 <211> 107  
 <212> PRT  
 <213> Pinus radiata



<400> 2156  
 Met Gly Arg Ser Pro Cys Cys Glu Lys Ala His Thr Asn Lys Gly Ala  
 1 5 10 15  
 Trp Thr Lys Glu Asp Asp Arg Leu Ile Ala His Ile Arg Thr His  
 20 25 30  
 Gly Glu Gly Cys Trp Arg Ser Leu Pro Lys Ala Ala Gly Leu Met Arg  
 35 40 45  
 Cys Gly Lys Ser Cys Arg Leu Arg Trp Ile Asn Tyr Leu Arg Pro Asp  
 50 55 60  
 Leu Lys Arg Gly Asn Phe Ser Glu Glu Glu Asp Glu Leu Ile Ile Lys  
 65 70 75 80  
 Leu His Ser Leu Leu Gly Asn Lys Trp Ser Leu Ile Ala Gly Arg Leu  
 85 90 95  
 Pro Gly Arg Thr Asp Asn Glu Ile Lys Asn Tyr  
 100 105

<210> 2157  
 <211> 124  
 <212> PRT  
 <213> Pinus radiata

<400> 2157  
 Leu Trp Leu Arg Phe Ser Gly Met Asp Arg Ser Asn Ser Ala Thr Gly  
 1 5 10 15  
 Glu Glu Asp Val Leu Ser Arg Cys Arg Glu Arg Lys Arg Phe Met Lys  
 20 25 30  
 Leu Ala Ile Glu Asn Arg Tyr Lys Leu Ala Thr Ala His Val Ala Tyr  
 35 40 45  
 Met Asp Ser Leu Arg Arg Met Gly Thr Gly Leu Arg Leu Phe Ala Glu  
 50 55 60  
 Gly Glu Thr Met Ser Glu Ser Ser Tyr Ser Thr Ser Pro Ile Gly Thr  
 65 70 75 80  
 Ser Glu Leu Ala Val Leu Pro Glu Lys Ser Val Ser Pro Ser Pro  
 85 90 95  
 Phe Pro Ser Ser Ser Pro Ser Leu Ser Gln Pro Gln Ser Pro Arg Ser  
 100 105 110  
 Glu Arg Ala Glu Ser Arg Ser Pro Leu Asp Ser Phe  
 115 120

<210> 2158  
 <211> 110  
 <212> PRT  
 <213> Pinus radiata

<400> 2158  
 Asp Gly Leu Val Gln Asn Ser Arg Glu Arg Lys Lys Gly Val Pro Trp  
 1 5 10 15  
 Thr Glu Glu Glu His Lys Met Phe Leu Leu Gly Leu His Lys Leu Gly  
 20 25 30  
 Lys Gly Asp Trp Arg Gly Ile Ser Arg Asn Phe Val Thr Ser Arg Thr  
 35 40 45  
 Pro Thr Gln Val Ala Ser His Ala Gln Lys Tyr Phe Leu Arg Gln Ser  
 50 55 60  
 Asn Leu Asn Lys Arg Lys Arg Arg Ser Ser Leu Phe Asp Ile Ser Thr  
 65 70 75 80  
 Asp Ser Met Glu Asp Cys Tyr Gln Gly Ile Pro Glu Leu Ser Pro Val  
 85 90 95  
 Met His Asp Leu Ser Leu Gly Gln Asn Ser Ser Leu Thr Ser  
 100 105 110

<210> 2159  
 <211> 175  
 <212> PRT  
 <213> Pinus radiata

<400> 2159  
 Ser Ser Pro Val Ser Lys Pro Lys Leu Arg Lys Gly Leu Trp Ser Pro  
 1 5 10 15  
 Glu Glu Asp Asp Lys Leu Ile Asn Tyr Met Met Lys Asn Gly Gln Gly  
 20 25 30  
 Cys Trp Ser Asp Val Ala Lys Gln Ala Gly Leu Gln Arg Cys Gly Lys  
 35 40 45  
 Ser Cys Arg Leu Arg Trp Ile Asn Tyr Leu Arg Pro Asp Leu Lys Arg  
 50 55 60  
 Gly Ala Phe Ser Pro Gln Glu Glu Gln Leu Ile Ile His Leu His Ser  
 65 70 75 80  
 Ile Leu Gly Asn Arg Trp Ser Gln Ile Ala Ala Arg Leu Pro Gly Arg  
 85 90 95  
 Thr Asp Asn Glu Ile Lys Asn Phe Trp Asn Ser Cys Ile Lys Lys Lys  
 100 105 110  
 Leu Lys His Leu Ser Ala Ser Thr Asn Asn Ser Lys Ser Ile Ser Ala  
 115 120 125  
 Pro Asn Arg Thr Ser Thr Met Asn Ser Ser Ile Thr Pro Phe Ser Glu  
 130 135 140  
 Ser Ser Ala Glu Pro Leu Glu Val Met Ala Thr Arg Tyr Gln Pro Ser  
 145 150 155 160  
 Asn Ala Phe Asn His Glu Val Pro Thr Ala Glu Asn Gln Val Leu  
 165 170 175

<210> 2160  
 <211> 78  
 <212> PRT  
 <213> Pinus radiata

<400> 2160  
 Met Gly Arg Ala Pro Cys Cys Glu Lys Val Gly Leu Lys Lys Gly Pro  
 1 5 10 15  
 Trp Thr Pro Glu Glu Asp Gln Lys Leu Leu Ala Tyr Ile Gln Glu His  
 20 25 30  
 Gly His Gly Ser Trp Arg Ala Leu Pro Gln Lys Ala Gly Leu Leu Arg  
 35 40 45  
 Cys Gly Lys Ser Cys Arg Leu Arg Trp Thr Asn Tyr Leu Arg Pro Asp  
 50 55 60  
 Ile Lys Arg Gly Lys Phe Asn Pro Gln Glu Glu Gln Thr Ile  
 65 70 75

<210> 2161  
 <211> 159  
 <212> PRT  
 <213> Pinus radiata

<400> 2161  
 Arg Thr Pro Arg Cys Asp Gln Met Gly Leu Lys Lys Gly Pro Trp Thr  
 1 5 10 15  
 Pro Glu Glu Asp Gln Ile Leu Ile Ser Tyr Ile Asn Lys His Gly His  
 20 25 30  
 Gly Asn Trp Arg Ala Leu Pro Lys Gln Ala Gly Leu Met Arg Cys Gly  
 35 40 45  
 Lys Ser Cys Arg Leu Arg Trp Thr Asn Tyr Leu Arg Pro Asp Ile Lys  
 50 55 60  
 Arg Gly Asn Phe Ser Leu Lys Glu Glu Gln Thr Ile Ile His Leu His

65					70					75				80
Gln	Ile	Leu	Gly	Asn	Arg	Trp	Ser	Ala	Ile	Ala	Ser	His	Leu	Pro Gly
				85					90					95
Arg	Thr	Asp	Asn	Glu	Ile	Lys	Asn	Val	Trp	Asn	Thr	His	Leu	Lys Lys
			100					105					110	
Arg	Leu	Leu	Gln	Ile	Gly	Val	Asp	Pro	Val	Thr	His	Ala	Pro	Arg Gly
			115				120					125		
Tyr	Asn	Val	Ser	Asn	Cys	Tyr	Thr	Ala	Val	Asn	Ile	Arg	Asp	His His
	130					135					140			
Gly	Glu	Gln	Ala	Asp	His	Gln	Leu	Gln	Ser	His	Val	Cys	Val	Ser
145					150					155				

<210> 2162  
 <211> 49  
 <212> PRT  
 <213> Pinus radiata

<400> 2162

Thr	Pro	Glu	Glu	Asp	Arg	Ile	Leu	Ile	Ser	Tyr	Ile	Lys	Arg	Asn Gly
1				5					10				15	
His	Gly	Lys	Trp	Leu	Ala	Leu	Pro	Lys	Gln	Ala	Gly	Leu	Ser	Arg Cys
			20					25					30	
Gly	Lys	Ser	Cys	Arg	Leu	Arg	Trp	Asn	Tyr	Leu	Arg	Pro	Asn	Ile
		35					40				45			

Lys

<210> 2163  
 <211> 78  
 <212> PRT  
 <213> Pinus radiata

<400> 2163

Met	Gly	Thr	Gly	Glu	Ala	Thr	Pro	Thr	Lys	Pro	Ala	Ala	Lys	Pro
1				5				10					15	
Ser	Ser	Ser	Ser	Gln	Glu	Thr	Pro	Thr	Thr	Pro	Val	Tyr	Pro	Asp Trp
			20					25				30		
Ala	Ala	Ala	Phe	Gln	Ala	Tyr	Tyr	Gly	Pro	Gly	Ala	Thr	Pro	Pro Pro
		35					40				45			
Pro	Ala	Phe	Phe	Ala	Ser	Thr	Val	Gly	Ser	Ala	Pro	Thr	Pro	His Pro
	50					55					60			
Tyr	Met	Trp	Gly	Gly	Gln	Pro	Leu	Met	Pro	Pro	Tyr	Gly	Thr	
65					70					75				

<210> 2164  
 <211> 113  
 <212> PRT  
 <213> Pinus radiata

<400> 2164

Met	Gly	Arg	Gly	Lys	Ile	Glu	Ile	Lys	Lys	Ile	Asp	Asp	Val	Thr Ser
1				5				10					15	
Arg	Gln	Val	Thr	Phe	Ser	Lys	Arg	Lys	Met	Gly	Ile	Phe	Lys	Lys Ala
			20					25				30		
His	Glu	Leu	Ser	Val	Leu	Cys	Asp	Ala	Glu	Val	Ala	Val	Leu	Ile Phe
		35					40				45			
Ser	Asn	Thr	Gly	Arg	Leu	Tyr	Asp	Tyr	Ala	Ser	Ser	Arg	Cys	Met Glu
	50					55					60			
Arg	Thr	Ile	Glu	Arg	Tyr	Glu	Lys	Cys	Thr	Lys	Ala	Ile	Asn	Cys Pro
65					70					75				80
Thr	Ser	Asp	Pro	Ile	Val	Glu	Asn	Lys	Ser	Pro	Ile	Gln	Glu	Gly Ile

			85					90				95			
Glu	Ile	Leu	Arg	Gln	Lys	Leu	Arg	Ala	Leu	Gln	Arg	Leu	Gln	Arg	Asn
			100					105					110		
Leu															

<210> 2165  
 <211> 107  
 <212> PRT  
 <213> Pinus radiata

<400> 2165

Thr	Lys	Ala	Ala	Ile	Lys	Arg	Leu	Gln	Ser	Gln	Ile	Met	Val	Ala	Phe
1				5					10					15	
Gln	Ala	Val	Asp	Thr	Thr	Ser	Ala	Ala	Ile	Leu	Lys	Leu	Arg	Glu	Asp
			20					25					30		
Glu	Leu	Tyr	Pro	Gln	Leu	Val	Glu	Leu	Ser	Lys	Gly	Leu	Met	Gln	Met
		35					40					45			
Trp	Arg	Ala	Met	Tyr	Glu	Cys	His	Gln	Val	Gln	Asn	His	Ile	Val	Gln
		50				55					60				
Gln	Val	Arg	His	Leu	Gly	Asn	Leu	Ala	Ser	Ala	Glu	Ala	Thr	Ser	Ser
65				70						75				80	
Tyr	His	Gln	Gln	Ala	Thr	Ile	Gln	Leu	Glu	Ala	Gln	Val	Thr	Ala	Trp
			85						90					95	
Tyr	Asp	Ser	Phe	Cys	Arg	Met	Ile	Thr	Ser	Gln					
			100					105							

<210> 2166  
 <211> 38  
 <212> PRT  
 <213> Pinus radiata

<400> 2166

Met	Gly	Ala	Pro	Lys	Gln	Lys	Trp	Thr	Ser	Glu	Glu	Glu	Gly	Ala	Leu
1				5					10					15	
Arg	Ala	Gly	Val	Glu	Lys	Tyr	Gly	Ala	Gly	Lys	Trp	Gln	Thr	Ile	Leu
			20					25					30		
Lys	Asp	Pro	Glu	Phe	Ala										
		35													

<210> 2167  
 <211> 158  
 <212> PRT  
 <213> Pinus radiata

<400> 2167

Ser	Gly	His	Met	Asp	Gly	Gly	Ser	Gly	Glu	Asp	Gln	Asp	Ala	Ala	Asp
1				5					10					15	
Gln	Asp	His	Asp	His	Asp	His	Asp	His	Asp	His	Glu	Gln	Gln	Gln	Thr
			20					25					30		
Arg	Arg	Lys	Arg	Tyr	His	Arg	His	Thr	Ala	Arg	Gln	Ile	Gln	Glu	Met
		35					40					45			
Glu	Ala	Leu	Phe	Lys	Glu	Cys	Pro	His	Pro	Asp	Asp	Lys	Gln	Arg	Gln
		50				55				60					
Arg	Leu	Ser	Ile	Glu	Leu	Gly	Leu	Lys	Pro	Arg	Gln	Val	Lys	Phe	Trp
65				70						75				80	
Phe	Gln	Asn	Arg	Arg	Thr	Gln	Met	Lys	Ala	Gln	Gln	Asp	Arg	Ser	Asp
			85						90					95	
Asn	Ala	Ile	Leu	Arg	Ala	Glu	Asn	Glu	Asn	Leu	Arg	Asn	Glu	Asn	Val
			100					105					110		
Ala	Leu	Arg	Glu	Ala	Ile	Lys	Asn	Gly	Ala	Cys	Pro	Asn	Cys	Gly	Gly

115 120 125  
 Ser Thr Ser Leu Gly Glu Met Pro Gly Phe Asp Glu His His Phe Arg  
 130 135 140  
 Ile Glu Asn Thr Arg Leu Lys Glu Glu Leu Asp Arg Val Ser  
 145 150 155

<210> 2168  
 <211> 122  
 <212> PRT  
 <213> Pinus radiata

<400> 2168  
 Met Gly Cys Thr Gln Gly Gln Arg Gln Gly Glu Trp Glu Gly Lys Gly  
 1 5 10 15  
 Val Pro Ser Asn Ser Ser Arg Arg Ser Leu Arg Lys Gly Leu Trp Ser  
 20 25 30  
 Pro Asp Glu Asp Ile Glu Leu Thr Tyr Ile Met Arg Lys Gly Leu  
 35 40 45  
 Met Gly Cys Trp Asn Tyr Ile Ala Lys Gln Ala Gly Leu Gln Arg Cys  
 50 55 60  
 Gly Lys Ser Cys Arg Leu Arg Trp Ile Asn Tyr Leu Arg Pro Gly Leu  
 65 70 75 80  
 Lys Arg Cys Ala Ile Ser Pro Gln Glu Glu Arg Leu Ile Ile Gln Leu  
 85 90 95  
 Gln Ser Ser Leu Gly Asn Arg Trp Ser Gln Ile Ala Ala His Leu Pro  
 100 105 110  
 Gly Arg Thr Asp Asn Glu Val Lys Asn Tyr  
 115 120

<210> 2169  
 <211> 101  
 <212> PRT  
 <213> Pinus radiata

<400> 2169  
 Met Gly Arg Ser Pro Cys Cys Glu Lys Ala His Thr Asn Lys Gly Ala  
 1 5 10 15  
 Trp Thr Gln Gln Glu Asp Thr Arg Leu Val Ala His Ile Arg Ala His  
 20 25 30  
 Gly Gln Gly Gly Trp Ser Ser Leu Pro Lys Ala Ala Gly Leu Leu Arg  
 35 40 45  
 Cys Gly Lys Ser Cys Arg Gln Arg Trp Ile Asn Tyr Leu His Pro Asp  
 50 55 60  
 Leu Lys Arg Ser Asn Phe Ser Glu Glu Glu Asp Glu Leu Ile Val Arg  
 65 70 75 80  
 Leu His Ser Leu Leu Gly Asn Lys Trp Ser Leu Ile Ala Gly Arg Leu  
 85 90 95  
 Pro Gly Arg Thr Asp  
 100

<210> 2170  
 <211> 133  
 <212> PRT  
 <213> Pinus radiata

<400> 2170  
 Arg Leu Leu Pro Gly Arg Thr Asp Asn Ala Ile Lys Asn His Trp Asn  
 1 5 10 15  
 Ser Thr Leu Arg Arg Arg Tyr His Gly Glu Lys Asp Gln Ser Asn Gly  
 20 25 30  
 Leu Ala Val Asn Leu Glu Ser Ala Ala Glu Asp Lys Glu Thr Met Thr

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          35          40          45
Pro Met Thr Pro Val Thr Ala Thr Ala Thr Ala Thr Ala Thr Ala Met
   50          55          60
Pro Val Ala Leu Val Phe Pro Thr Ala Ala Asp Asn Val Arg Lys Arg
65          70          75          80
Ser Asn Ser Ser Cys Ser Ala Asn Asp Asn Pro Gly Asp Ala Glu Val
          85          90          95
Glu Ser Cys Arg Leu Lys Arg Leu Asn Phe Ser Glu Ser Pro Ser Ser
          100          105          110
Ser Glu Asn Ile Asn Asn Asn Asn Asn Asn Glu Glu Ala Val Ser Gly
          115          120          125
His Cys Asn Ser Ala
   130

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<210> 2171  
 <211> 120  
 <212> PRT  
 <213> Pinus radiata

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          <400> 2171
Met Arg Cys Lys Thr Gly Gln Ala Gln Gly Val Leu Glu Val Glu Gly
   1          5          10          15
Thr His Pro Ala Pro Ser Lys Pro Lys Leu Arg Lys Gly Leu Trp Ser
          20          25          30
Pro Val Glu Asp Asn Gln Leu Thr Asn Tyr Ile Leu Arg Arg Gly Leu
          35          40          45
Val Gly Cys Trp Asn Tyr Val Ala Lys Gln Ala Gly Leu Gln Arg Thr
          50          55          60
Gly Lys Ser Cys Arg Leu Arg Trp Ile Asn Tyr Leu Arg Pro Gly Leu
65          70          75          80
Lys Arg His Pro Ile Ser Arg Gln Glu Glu Gln Leu Ile Ile Glu Leu
          85          90          95
Gln Ser Ile Leu Gly Asn Arg Trp Ser Gln Ile Ala Ala Gln Leu Pro
          100          105          110
Gly Arg Thr Asp Ile Glu Ile Lys
          115          120

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<210> 2172  
 <211> 155  
 <212> PRT  
 <213> Pinus radiata

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          <400> 2172
Gln Gln Leu Glu Ser Ser Arg Ile Lys Leu Lys Gln Ile Glu Gln Glu
   1          5          10          15
Leu Glu Arg Val Lys Gln Gln Gly Ile Ser Ile Asn Gly His Leu Gly
          20          25          30
Asp His Asn Gly Ser Gly Ala Ala Ala Phe Asp Met Glu Tyr Gly Arg
          35          40          45
Trp Val Glu Glu Gln Asn Arg Gln Ala Arg Glu Leu Arg Ala Ser Leu
          50          55          60
Gln Ala His Leu Thr Asp Ser Glu Leu Cys Val Leu Val Asp Asn Ala
65          70          75          80
Ile Ala His Tyr Asp Glu Leu Phe Arg Met Lys Gly Ala Ala Ser Lys
          85          90          95
Leu Asp Val Phe His Leu Met Ser Gly Met Trp Lys Thr Pro Thr Glu
          100          105          110
Arg Cys Phe Met Trp Met Gly Gly Phe Arg Pro Ser Glu Leu Leu Lys
          115          120          125
Ile Leu Thr Pro Gln Ile Glu Pro Leu Thr Glu Gln Gln Ser Phe Ala
          130          135          140

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Val Ser Ser Leu Lys Leu Ser Ser Gln Gln Ala  
145 150 155

<210> 2173  
<211> 63  
<212> PRT  
<213> Pinus radiata

<400> 2173  
Met Val Arg Gly Lys Ile Gln Met Lys Arg Ile Glu Asn Thr Ala Ser  
1 5 10 15  
Arg Gln Val Thr Phe Ser Lys Arg Arg Asn Gly Leu Leu Lys Lys Ala  
20 25 30  
Tyr Glu Leu Ser Val Leu Cys Asp Ala Glu Val Gly Leu Met Ile Phe  
35 40 45  
Ser Pro Gly Gly Lys Leu Tyr Glu Phe Ala Asn Thr Ser Met Glu  
50 55 60

<210> 2174  
<211> 76  
<212> PRT  
<213> Pinus radiata

<400> 2174  
Arg Ala Arg Lys Thr Glu Ile Leu Val Thr Glu Ile Glu Gln Leu Gln  
1 5 10 15  
Arg Lys Glu Trp Ile Leu Ser Glu Glu Asn Ala Phe Leu Gly Lys Lys  
20 25 30  
Phe Val His Pro His Ser Val Ser Lys Thr Pro Gly Ser Glu Ser Gly  
35 40 45  
Ser Ile Gln Asn Ser Glu Val Glu Thr Gln Leu Val Met Arg Pro Pro  
50 55 60  
Cys Thr Asn Ala His Phe Leu Ile Asn Ser Ser His  
65 70 75

<210> 2175  
<211> 161  
<212> PRT  
<213> Eucalyptus grandis

<400> 2175  
Arg Glu Ser Ala Asn Cys Ala Ser Arg Val Ala Asp Arg Arg Glu Asn  
1 5 10 15  
Arg Arg Arg Arg Asp Met Gly Asn Gln Lys Leu Lys Trp Thr Lys Glu  
20 25 30  
Glu Glu Glu Ala Leu Leu Ala Gly Ile Ala Lys His Gly Ala Gly Lys  
35 40 45  
Trp Lys Asn Ile Leu Lys Asp Pro Glu Phe Ala Pro Ala Leu Val Asn  
50 55 60  
Arg Ser Asn Ile Asp Leu Lys Asp Lys Trp Arg Asn Leu Ser Val Gly  
65 70 75 80  
Thr Ser Gly Gln Gly Ser Arg Asp Lys Gln Arg Leu Ser Lys Val Lys  
85 90 95  
Ser Leu Met Ala Ala Pro Gln Ser Ser Thr Val Pro Leu Asn Pro Gln  
100 105 110  
Ala His Ala Ala Ser Thr Asp Val Ala Leu Val Asn Ser Ser Asn Ser  
115 120 125  
Phe Gln Asp Gly Lys Asn Tyr Ser Leu Trp Val Ser Val Leu Leu Phe  
130 135 140  
Leu Phe Ser Asn Gly Asn Leu Phe Tyr Phe Tyr Pro Leu Leu Ser Phe  
145 150 155 160

Leu

<210> 2176  
 <211> 31  
 <212> PRT  
 <213> Eucalyptus grandis

<400> 2176  
 Thr Arg Gln Ser Ala Arg Ala Leu Leu Ala Ile His Asp Tyr Phe Ser  
 1 5 10 15  
 Arg Leu Arg Ala Leu Ser Ser Leu Trp Leu Ala Arg Pro Arg Glu  
 20 25 30

<210> 2177  
 <211> 191  
 <212> PRT  
 <213> Eucalyptus grandis

<400> 2177  
 Met Ala Ser Arg Lys Glu Val Asp Arg Ile Lys Gly Pro Trp Ser Pro  
 1 5 10 15  
 Glu Glu Asp Glu Ala Leu Arg Leu Leu Val Gln Lys His Gly Pro Arg  
 20 25 30  
 Asn Trp Ser Leu Ile Ser Lys Ser Ile Pro Gly Arg Ser Gly Lys Ser  
 35 40 45  
 Cys Arg Leu Arg Trp Cys Asn Gln Leu Ser Pro Gln Val Glu His Arg  
 50 55 60  
 Ala Phe Thr Pro Glu Glu Asp Asp Ile Ile Val Arg Ala His Ala Arg  
 65 70 75 80  
 Phe Gly Asn Lys Trp Ala Thr Ile Ala Arg Leu Leu Ser Gly Arg Thr  
 85 90 95  
 Asp Asn Ala Ile Lys Asn His Trp Asn Ser Thr Leu Lys Arg Lys Cys  
 100 105 110  
 Ser Pro Pro Leu Ser Pro Leu Ala Glu Glu Gly Asn Asn Arg Ala Phe  
 115 120 125  
 Asp Ala Ala Ala Gly Tyr Asp Gly Asp Leu Ser Pro Arg Glu Arg Pro  
 130 135 140  
 Ala Lys Arg Ser Ala Ser Ala Gly Pro Cys Leu Ser Pro Gly Ser Pro  
 145 150 155 160  
 Ser Gly Ser Gly Met Ser Asp Ser Ser Val His Phe Val Tyr Arg Pro  
 165 170 175  
 Val Ala Lys Thr Gly Pro Val Val Pro Pro Thr Val Glu Ala Thr  
 180 185 190

<210> 2178  
 <211> 113  
 <212> PRT  
 <213> Eucalyptus grandis

<400> 2178  
 Gln Val Ala Gln Leu Arg Val Glu Asn Ser Thr Leu Leu Lys Arg Leu  
 1 5 10 15  
 Ser Asp Ile Ser Gln Lys Tyr Asn Val Ala Ala Val Asp Asn Arg Val  
 20 25 30  
 Leu Lys Ala Asp Val Glu Thr Leu Arg Ala Lys Val Lys Met Ala Glu  
 35 40 45  
 Glu Thr Val Lys Arg Val Thr Gly Leu Asn Pro Met Leu His Val Met  
 50 55 60  
 Ser Asp Met Ser Ser Val Gly Val Pro Pro Phe Asp Gly Ser Pro Ser  
 65 70 75 80



[illegible]

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<210> 2179
<211> 314
<212> PRT
<213> Eucalyptus grandis
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	<400>			2179															
Met 1	Lys	Arg	Leu	Gly 5	Ser	Ser	Asp	Ser	Leu 10	Gly	Ala	Leu	Met 15	Ser	Ile				
Cys	Pro	Pro	Ser 20	Glu	Glu	Leu	Gln	His 25	Ser	Pro	Arg	Asn 30	Gly	Asn	Pro				
Ile	Tyr	His 35	Ser	Arg	Asp	Leu	Gln 40	Ser	Met	Leu	Glu	Leu 45	Gly	Leu	Asp				
Glu	Glu 50	Gly	Cys	Val	Glu	Asp 55	Gln	Ser	Ala	Gly	Gly 60	Gly	Gly	His	Val				
Gly 65	Gly	Glu	Lys	Lys 70	Arg	Arg	Leu	Ser	Ile	Asp 75	Gln	Val	Lys	Ala	Leu 80				
Glu	Lys	Asn	Phe 85	Glu	Val	Glu	Asn	Lys 90	Leu	Glu	Pro	Glu	Arg	Lys 95	Val				
Lys	Leu	Ala 100	Gln	Glu	Leu	Gly	Leu	Gln 105	Pro	Arg	Gln	Val	Ala 110	Val	Trp				
Phe	Gln	Asn 115	Arg	Arg	Ala	Arg	Trp	Lys 120	Thr	Lys	Gln	Leu 125	Glu	Arg	Asp				
Tyr	Gly 130	Val	Leu	Lys	Ser	Ser 135	Tyr	Glu	Ala	Leu	Lys 140	Leu	Ser	Tyr	Asp				
Ala 145	Leu	Lys	His	Asp	Asn 150	Glu	Ala	Leu	His	Lys 155	Glu	Ile	Lys	Glu	Leu 160				
Lys	Ser	Lys	Leu 165	Arg	Glu	Glu	Asp	Asp 170	Asn	Pro	Glu	Ser	Asn	Leu 175	Ser				
Val	Lys	Glu 180	Glu	Val	Ile	Ile	Pro	Gly 185	His	Asp	Val	Ser	Asp 190	Lys	Ile				
Arg	Ala 195	Ala	Asp	Asp	Gly	Asp	Asp 200	Asp	Thr	Lys	Arg	Ser 205	Pro	Pro	Pro				
Pro	Ile 210	Thr	Ala	Pro	Pro	Arg 215	Glu	Leu	Ser	Phe	Asn 220	Asn	Gly	Gly	Leu				
Lys 225	Asp	Gly	Ser	Ser 230	Asp	Ser	Asp	Ser	Ser	Ala 235	Ile	Val	Asn	Glu	Glu 240				
Asn	Ala	Ala	Thr 245	Ser	Ser	Ser	Ser	Pro 250	Asn	Pro	Ala	Val	Gln	Ser 255	His				
Gly	Gly	Phe 260	Leu	Lys	Phe	Met	Gly	Ser 265	Ser	Ser	Ser	Ser	Ala 270	Ser	Pro				
Pro	Pro	Ser 275	Pro	Pro	Ala	Ser	Phe 280	Gly	Gly	Cys	Phe	Ser 285	Phe	Gln	Phe				
Gln	Arg 290	Ala	Tyr	Gln	Pro	Gln 295	Pro	Gln	Pro	Pro	His 300	His	His	His	His				
His 305	Ser	Pro	Tyr	Val	Lys 310	Met	Glu	Glu	His										

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<210> 2180
<211> 94
<212> PRT
<213> Eucalyptus grandis
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<400> 2180  
Glu Arg Tyr Lys Ser Ala Cys Ser Asp Ser Ser His Pro Gln Ser Val

1	5	10	15
Ser Asp Val	Asn Thr Gln Phe Tyr	Gln Gln Glu Ala Ser Lys	Leu Arg
	20	25	30
Arg Gln Ile	Arg Glu Ile Gln Val Ser Asp	Arg His Leu Leu Gly Glu	
	35	40	45
Gly Ile Ser	Asp Leu Ser Phe Lys Asp Leu Lys	Asn Leu Glu Ser Lys	
	50	55	60
Leu Glu Lys	Ser Ile Ser Arg Val Arg Ser Lys Lys	Asn Glu Met Leu	
65	70	75	80
Phe Ala Glu	Ile Glu Tyr Met Gln Lys Arg Gly	Leu Val Gln	
	85	90	

<210> 2181  
 <211> 83  
 <212> PRT  
 <213> Eucalyptus grandis

<400> 2181
Glu Asn Lys Ile Asn Arg Gln Val Thr Phe Ala Lys Arg Arg Asn Gly
1 5 10 15
Leu Leu Lys Lys Ala Tyr Glu Leu Ser Val Leu Cys Asp Ala Glu Val
20 25 30
Ala Leu Ile Ile Phe Ser Thr Arg Gly Lys Leu Tyr Glu Phe Cys Ser
35 40 45
Ser Pro Ser Met Leu Lys Thr Leu Asp Arg Tyr Gln Lys Cys Ser Tyr
50 55 60
Gly Ser Val Glu Val Asn Lys Pro Ser Lys Glu Leu Glu Asn Ala Tyr
65 70 75 80
Arg Glu Tyr

<210> 2182  
 <211> 108  
 <212> PRT  
 <213> Eucalyptus grandis

<400> 2182
Met Gly Arg Gly Lys Ile Glu Ile Gln Lys Ile Glu Asn Asp Thr Asn
1 5 10 15
Arg Gln Val Thr Tyr Ser Lys Arg Arg Asn Gly Ile Phe Lys Lys Ala
20 25 30
His Glu Leu Thr Val Leu Cys Asp Ala Arg Val Ser Ile Leu Met Leu
35 40 45
Ser Gly Asn Lys Lys Leu His Glu Tyr Ile Ser Pro Thr Thr Thr Thr
50 55 60
Lys Arg Met Ile Asp Asp Tyr Gln Lys Ala Leu Gly Ile Asp Leu Trp
65 70 75 80
Thr Thr His Tyr Asp Arg Met Gln Glu Glu Leu Arg Lys Leu Lys Glu
85 90 95
Val Asn Asn Asn Phe Arg Lys Glu Ile Arg Gln Ile
100 105

<210> 2183  
 <211> 40  
 <212> PRT  
 <213> Eucalyptus grandis

<400> 2183
Arg Asn Leu Met Gly Glu Asp Leu Gly Thr Leu Asn Ser Lys Glu Leu
1 5 10 15
Glu Gln Leu Glu Arg Gln Leu Glu Ala Ser Leu Lys His Ile Arg Ser

20 25 30  
 Thr Lys Thr Gln Cys Met Leu Asp  
 35 40  
 <210> 2184  
 <211> 161  
 <212> PRT  
 <213> Eucalyptus grandis  
 <400> 2184  
 Met Val Phe Pro Thr Gln Ala Thr Pro Glu Glu Ser Pro Gln Arg Lys  
 1 5 10 15  
 Met Gly Arg Gly Lys Ile Glu Ile Lys Arg Ile Glu Asn Thr Thr Asn  
 20 25 30  
 Arg Gln Val Thr Phe Cys Lys Arg Arg Asn Gly Leu Leu Lys Lys Ala  
 35 40 45  
 Tyr Glu Leu Ser Val Leu Cys Glu Ala Glu Val Ala Leu Ile Val Phe  
 50 55 60  
 Ser Ser Arg Gly Arg Leu Tyr Glu Tyr Ala Asn Asp Ser Val Lys Ala  
 65 70 75 80  
 Thr Ile Glu Arg Tyr Lys Lys Ala Cys Ser Asp Ser Ser Ser Ser Gly  
 85 90 95  
 Ser Val Ser Glu Ala Asn Val Gln Phe Tyr Gln Gln Glu Ser Ala Lys  
 100 105 110  
 Leu Gln Gln Gln Ile Asn Asn Met Gln Asn Asn Asn Arg Gln Leu Val  
 115 120 125  
 Gly Asp Ser Ile Ala Gly Met Asn Met Lys Asp Met Lys Thr Thr Glu  
 130 135 140  
 Gln Lys Leu Glu Lys Ala Ile Ala Lys Ile Arg Ala Lys Lys Asn Ala  
 145 150 155 160  
 Ile

<210> 2185  
 <211> 92  
 <212> PRT  
 <213> Eucalyptus grandis

<400> 2185  
 Gln His Lys Glu Gln Met Leu Val Glu Ala Asn Arg Glu Leu Arg Lys  
 1 5 10 15  
 Lys Leu Glu Glu Ser Asn Thr Arg Ile Pro Leu Arg Leu Gly Trp Glu  
 20 25 30  
 Ala Glu Asp His Asn Asn Ile Ser Tyr Ser Arg Leu Pro Met Gln Ser  
 35 40 45  
 Gln Gly Leu Ile Phe Gln Pro Leu Gly Gly Asn Pro Thr Leu Gln Ile  
 50 55 60  
 Gly Tyr Asn Pro Ala Gly Ser Asn Glu Leu Asn Val Ser Ala Ala Asp  
 65 70 75 80  
 Gln His Pro Asn Gly Phe Ile Pro Gly Trp Met Leu  
 85 90

<210> 2186  
 <211> 113  
 <212> PRT  
 <213> Eucalyptus grandis

<400> 2186  
 Gly Ser Lys Glu Leu Glu Ser Leu Glu Arg Gln Leu Asp Gly Ser Leu  
 1 5 10 15  
 Lys Gln Ile Arg Ser Arg Arg Thr Gln Tyr Met Leu Asp Lys Leu Thr

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      20      25      30
Asp Leu Gln His Arg Glu Gln Leu Leu His Glu Ala Asn Arg Thr Leu
      35      40      45
Asn Gln Arg Leu Met Glu Gly Tyr Gln Val Asn Ala Leu Gln Leu Asn
      50      55      60
Gln His Ala Glu Glu Val Gly Gly Tyr Gly His Pro Pro Pro Pro
65      70      75      80
Leu Pro Pro Gln Pro Leu Ala Gln Pro His Ser Glu Ala Phe Phe Asn
      85      90      95
Pro Leu Glu Cys Glu Pro Thr Leu Gln Met Gly Tyr Gln Pro Asp Pro
      100      105      110
Val

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<210> 2187
<211> 309
<212> PRT
<213> Eucalyptus grandis

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      <400> 2187
Met Thr Arg Arg Cys Ser His Cys Cys Asn Lys Gly His Asn Ser Arg
1      5      10      15
Thr Cys Pro Val Arg Gly Gly Gly Gly Asp Gly Gly Gly Ala Ala Ala
      20      25      30
Ala Pro Ser Ser Ser Ser Pro Ser Thr Ser Ser Ser Gly Ala Ala Ala
      35      40      45
Ala Ala Ala Ala Ser Ala Ser Gly Gly Gly Val Lys Leu Phe Gly Val
      50      55      60
Arg Leu Thr Asp Gly Ser Ile Met Lys Lys Ser Ala Ser Val Gly Cys
65      70      75      80
Leu Ser Ala Ala His Tyr His Ser Ser Ser Ser Ala Ala Ala Ser Pro
      85      90      95
Asn Pro Gly Ser Ser Pro Ile Asp Gly Ser Asp Gly Tyr Leu Ser Asp
      100      105      110
Asp Pro Ala Pro Gly Ser Arg Ser Ser Asn Arg Arg Val Glu Arg Lys
      115      120      125
Lys Gly Asn Pro Trp Thr Glu Glu Glu His Arg Arg Phe Leu Ile Gly
      130      135      140
Leu Gln Lys Leu Gly Lys Gly Asp Trp Arg Gly Ile Ala Arg Asp Phe
145      150      155      160
Val Thr Thr Arg Thr Pro Thr Gln Val Ala Ser His Ala Gln Lys Tyr
      165      170      175
Tyr Ile Arg Gln Ser Asn Ala Gly Arg Arg Lys Arg Arg Ser Ser Leu
      180      185      190
Phe Asp Met Ala Pro Asp Met Ala Thr Ala Asp Gln Pro Ser His Pro
      195      200      205
Glu Glu Thr Phe Leu Pro Pro Leu Val Arg Leu Asn Asp Asp Thr Asn
      210      215      220
Ser Thr Thr Ser Thr Ser Met Gly Leu Asp Leu Glu Arg Thr Pro Met
225      230      235      240
Glu Thr Ser His Pro Glu Thr Ser Glu Gly Gly Gly Asp Val Ala Met
      245      250      255
Glu Ser Ile Asp Gln Val Pro Leu Val Pro Cys Tyr Phe Pro Tyr Tyr
      260      265      270
Leu Pro Leu Pro Phe Pro Met Trp Pro Pro Asn Met Ala Pro Pro Glu
      275      280      285
Asp Gly Arg Val Val Glu Thr Ser His His Arg Val Leu Lys Pro Ile
      290      295      300
Pro Val Ile Pro Lys
305

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<210> 2188  
 <211> 123  
 <212> PRT  
 <213> Eucalyptus grandis

<400> 2188  
 Trp Asp Thr Ser Ser Ser Pro Pro Thr Leu Leu Glu Ser Val Asp Asn  
 1 5 10 15  
 Phe Ile Leu Ser Pro Ala Arg Thr Gly Lys Ala Glu Ser Glu Cys Leu  
 20 25 30  
 Ser Pro Arg Asn Ser Gly Leu Leu Asp Ala Leu Val His Glu Ser Lys  
 35 40 45  
 Thr Met Ser Ser Ala Lys Asn Asn Ser Pro Glu Lys Ser Thr Asn Ser  
 50 55 60  
 Ser Ala Leu Thr Pro Gly Asp Ile Ser Ser Ser Thr Leu Asp Ile Cys  
 65 70 75 80  
 Lys Ser Glu Trp Glu Glu Tyr Gly Asp Pro Ile Ser Pro Pro Gly His  
 85 90 95  
 Ser Ala Thr Ser Val Phe Asn Gly Cys Thr Pro Leu Ser Thr Ser Gly  
 100 105 110  
 Ser Ser Leu Asp Glu Gln Pro Tyr Pro Asp Thr  
 115 120

<210> 2189  
 <211> 136  
 <212> PRT  
 <213> Eucalyptus grandis

<400> 2189  
 His Ile Arg Arg Lys Leu Leu Asn Arg Gly Ile Asp Pro Ala Thr His  
 1 5 10 15  
 Arg Pro Leu Asn Glu Pro Ala Gln Asp Ala Thr Thr Ile Ser Phe Ala  
 20 25 30  
 Ala Ala Pro Ser Lys Gln Glu Pro Arg Asp Asp Ala Ile Ala Ala Ala  
 35 40 45  
 Leu Gly Tyr Lys Asn Glu Asn Asn Pro Thr Thr Thr Ala Ala Thr Val  
 50 55 60  
 Gln Glu Lys Cys Pro Asp Leu Asn Leu Glu Leu Arg Ile Ser Pro Pro  
 65 70 75 80  
 Cys Gln Gln Gln His Gln Pro Asp Ala Ser Met Gly Met Val Glu Gly  
 85 90 95  
 Asn His Cys Phe Ala Cys Ser Leu Gly Leu Gln Asn Ser Lys Glu Cys  
 100 105 110  
 Ser Cys Arg Arg Gly Ala Ser Gly Gly Ser Ser Ala His Gly Gly Tyr  
 115 120 125  
 Asp Phe Leu Gly Leu Lys Thr Ser  
 130 135

<210> 2190  
 <211> 109  
 <212> PRT  
 <213> Eucalyptus grandis

<400> 2190  
 Met Glu Phe Pro Ser Glu Phe Ser Glu Ala Ser Ser Gln Lys Arg Ile  
 1 5 10 15  
 Gly Gly Arg Gly Lys Ile Glu Ile Lys Arg Ile Glu Asn Thr Thr Asn  
 20 25 30  
 Arg Gln Val Thr Phe Cys Lys Arg Arg Asn Gly Leu Leu Lys Lys Ala  
 35 40 45  
 Tyr Glu Leu Ser Val Leu Cys Asp Ala Glu Val Ala Leu Ile Val Phe

```

      50              55              60
Ser Ser Arg Gly Arg Leu Tyr Glu Tyr Ala Asn Asn Ser Val Arg Gly
65              70              75              80
Thr Ile Glu Arg Tyr Lys Lys Ala Ser Ser Asp Ser Ser Thr Ser His
      85              90              95
Ser Pro Phe Pro Glu Val Glu His Ser Ser Phe Ile Gln
      100              105

```

<210> 2191  
 <211> 116  
 <212> PRT  
 <213> Eucalyptus grandis

```

      <400> 2191
Met Gly Arg Gly Arg Val Glu Leu Lys Arg Ile Glu Asn Lys Ile Asn
1              5              10              15
Arg Gln Val Thr Phe Ser Lys Arg Arg Asn Gly Leu Leu Lys Lys Ala
      20              25              30
Tyr Glu Leu Ser Val Leu Cys Asp Val Glu Val Ala Leu Leu Ile Phe
      35              40              45
Ser Ser Arg Gly Lys Leu Tyr Glu Phe Gly Ser Ala Gly Pro Ser Gly
50              55              60
Ile Asn Lys Thr Leu Glu Arg Tyr Gln Arg Asp Asn Phe Thr Pro Gln
65              70              75              80
Asp Asn Val Ala Glu His Glu Thr Gln Gln Asn Trp Phe Gln Glu Ile
      85              90              95
Ser Lys Leu Lys Ala Lys Tyr Glu Leu Phe Asn Lys Leu Gln Lys His
      100              105              110
Leu Leu Gly Lys
      115

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<210> 2192  
 <211> 98  
 <212> PRT  
 <213> Eucalyptus grandis

```

      <400> 2192
Met Ala Arg Gly Lys Val Gln Met Lys Arg Ile Glu Asn Pro Val His
1              5              10              15
Arg Gln Val Thr Phe Cys Lys Arg Arg Ala Gly Leu Leu Lys Lys Ala
      20              25              30
Lys Glu Leu Ser Val Leu Cys Asp Ala Asp Ile Gly Leu Phe Ile Phe
      35              40              45
Ser Pro His Gly Lys Leu Tyr Glu Leu Ala Thr Lys Gly Thr Met Lys
50              55              60
Gly Leu Ile Glu Arg Tyr Met Lys Thr Thr Gln Ser Gln Ala Ala Leu
65              70              75              80
Thr Glu Glu Ala Thr Pro Ser Gln Pro Leu Asp Ala Lys Glu Glu Ile
      85              90              95
Asn Ile

```

<210> 2193  
 <211> 198  
 <212> PRT  
 <213> Eucalyptus grandis

```

      <400> 2193
Met Gly Arg Gly Lys Val Glu Leu Lys Arg Ile Glu Asn Lys Ile Asn
1              5              10              15
Arg Gln Val Thr Phe Ala Lys Arg Arg Asn Gly Leu Leu Lys Lys Ala

```

```

                20                25                30
Tyr Glu Leu Ser Val Leu Cys Asp Ala Glu Val Ala Leu Ile Ile Phe
                35                40                45
Ser Asn Arg Gly Lys Leu Tyr Glu Phe Cys Ser Ser Ser Ser Met Met
                50                55                60
Lys Thr Ile Glu Lys Tyr Gln Lys Cys Ser Tyr Gly Ser Leu Glu Thr
65                70                75                80
Asn Cys Ser Ile Asn Glu Met Gln Asn Ser Tyr Gln Asp Tyr Leu Lys
                85                90                95
Leu Lys Thr Arg Val Glu Val Leu Gln Arg Ser Gln Arg Asn Leu Leu
                100                105                110
Gly Glu Glu Leu Gly Pro Leu Asn Ser Lys Glu Leu Glu Gln Leu Glu
                115                120                125
His Gln Leu Glu Asn Ser Leu Lys Gln Ile Arg Ser Ala Lys Thr Gln
130                135                140
Phe Met Phe Asp Gln Leu Ala His Leu Gln His Lys Glu Gln Met Leu
145                150                155                160
Val Glu Ala Asn Arg Glu Leu Arg Lys Lys Leu Glu Glu Ser Asn Thr
                165                170                175
Arg Ile Pro Leu Arg Leu Gly Trp Glu Ala Glu Asp His Asn Asn Ile
180                185                190
Ser Tyr Ser Arg Leu Pro
                195

```

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<210> 2194
<211> 153
<212> PRT
<213> Eucalyptus grandis

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```

<400> 2194
Met Arg Lys Pro Cys Cys Asp Lys Arg Asp Thr Asn Lys Gly Ala Trp
1                5                10                15
Ser Lys Gln Glu Asp Gln Lys Leu Ile Asp Tyr Ile Gln Lys His Gly
20                25                30
Glu Gly Ser Trp Arg Thr Leu Pro Gln Ala Ala Gly Leu Leu Arg Cys
35                40                45
Gly Lys Ser Cys Arg Leu Arg Trp Ile Asn Tyr Leu Arg Pro Asp Leu
50                55                60
Lys Arg Gly Asn Phe Ala Glu Asp Glu Glu Asp Leu Ile Ile Lys Leu
65                70                75                80
His Ala Leu Leu Gly Asn Arg Trp Ser Leu Ile Ala Gly Arg Leu Pro
85                90                95
Gly Arg Thr Asp Asn Glu Val Lys Asn Tyr Trp Asn Ser His Leu Arg
100                105                110
Arg Lys Leu Leu Lys Met Gly Ile Asp Pro Asn Asn His Arg Leu Asn
115                120                125
Gln Asn Leu Pro Arg Ser Gln Thr Arg Met Pro Arg Gln His Phe Leu
130                135                140
Ile Gln Tyr Glu Asp His Met Thr Leu
145                150

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<210> 2195
<211> 104
<212> PRT
<213> Eucalyptus grandis

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<400> 2195
Glu Ala Leu Gln Gln Ser Leu Val Asp Thr Leu Ser Ser Thr Thr Leu
1                5                10                15
Ser Pro Thr Gly Ser Gly Asn Val Ala Glu Tyr Met Gly Gln Met Ala
20                25                30

```

Ile Ala Met Gly Lys Leu Ala Thr Leu Glu Asn Phe Val His Gln Ala  
           35                          40                          45  
 Asp Leu Leu Arg Gln Gln Thr Leu Gln Gln Met His Arg Ile Leu Thr  
       50                          55                          60  
 Thr Arg Gln Ala Ala Arg Ala Leu Leu Val Ile Asn Asp Tyr Ile Ser  
       65                          70                          75                          80  
 Arg Leu Arg Ala Leu Ser Ser Leu Trp Leu Ala Arg Pro Arg Thr Glu  
                           85                          90                          95  
 Asn Ile Cys Ser Ala Lys Leu Phe  
                           100

<210> 2196  
 <211> 25  
 <212> PRT  
 <213> Eucalyptus grandis

<400> 2196  
 Asp Pro Leu Met Lys Pro Trp Gln Ile Pro Cys Pro Ile Gln Pro Ile  
       1                          5                          10                          15  
 Ile Ala Ser Ala Asp Leu Phe Glu Cys  
                           20                          25

<210> 2197  
 <211> 87  
 <212> PRT  
 <213> Eucalyptus grandis

<400> 2197  
 Met Gly Arg Arg Lys Ile Glu Ile Gln Pro Ile Thr His Glu Arg Asn  
       1                          5                          10                          15  
 Arg Ser Val Thr Phe Leu Lys Arg Lys Asn Gly Leu Phe Lys Lys Ala  
                           20                          25                          30  
 Tyr Glu Leu Gly Val Leu Cys Ser Val Asp Val Ala Val Ile Ile Phe  
                           35                          40                          45  
 Glu Asp Arg Pro Gly His Ser Pro Lys Leu Tyr Gln Tyr Ser Ser Arg  
       50                          55                          60  
 Gly Ile Gln Asp Ile Val Gln Arg His Leu His His Asp Gly Glu Thr  
       65                          70                          75                          80  
 Asp Asn Arg Gly Pro Gly Asp  
                           85

<210> 2198  
 <211> 107  
 <212> PRT  
 <213> Eucalyptus grandis

<400> 2198  
 Arg Asp Arg Thr Phe Leu Val Gly Leu Glu Lys Leu Gly Lys Gly Asp  
       1                          5                          10                          15  
 Trp Arg Gly Ile Ser Arg Ser Tyr Val Thr Thr Arg Thr Pro Ala Gln  
                           20                          25                          30  
 Val Ala Ser His Ala Gln Lys Tyr Phe Leu Arg Gln Val Ser Phe Asn  
                           35                          40                          45  
 Lys Lys Lys Arg Arg Ser Ser Leu Phe Asp Met Val Lys Asn Gln Cys  
       50                          55                          60  
 Ser Tyr Lys Leu Leu Pro Ser Tyr Arg Leu Ser Ser Ile Ser Leu Met  
       65                          70                          75                          80  
 Gly Phe Asp Lys Phe Leu Leu Tyr Lys Val Asp Val Lys Thr Ala Ala  
                           85                          90                          95  
 Gly Asp Arg Leu Gly Ser Leu Thr Ala Lys Pro  
                           100                          105



<210> 2199  
 <211> 107  
 <212> PRT  
 <213> Eucalyptus grandis

<400> 2199  
 Met Thr Leu Glu Glu Phe Leu Val Arg Ala Gly Val Val Arg Glu Asp  
 1 5 10 15  
 Thr Gln Met Met Ala Arg Pro Gly Asp Asn Gly Val His Glu Glu Met  
 20 25 30  
 Ser Gln Phe Thr Ser Asn Gly Leu Ala Ser Ser Ala Ala Ala Gly Asn  
 35 40 45  
 Asp Phe Ile Phe Ser Ser Lys Pro Ala Gly Ser Ser Leu Asp Phe Ile  
 50 55 60  
 Gly Thr Arg Pro Thr Gln Leu Gln Gln Gln Pro Gln Pro Gln Pro Leu  
 65 70 75 80  
 Glu Pro Pro Ala Pro Leu Phe Pro Lys Pro Glu Thr Val Ser Phe Ala  
 85 90 95  
 Thr Ser Val His Leu Pro Asn Thr Ala Ser Tyr  
 100 105

<210> 2200  
 <211> 150  
 <212> PRT  
 <213> Eucalyptus grandis

<400> 2200  
 Ala Asn Ala Pro Leu Arg Ile Ala Met Asn Ser Asn Ala Ser Ser Asn  
 1 5 10 15  
 Pro Gln Ser Met Ala Thr Ser Thr Thr Ser Ala Thr Thr Pro Ala Ala  
 20 25 30  
 Gly Gly Asp Gly Gly Lys Lys Val Arg Lys Pro Tyr Thr Ile Thr Lys  
 35 40 45  
 Ser Arg Glu Ser Trp Thr Glu Glu His Asp Lys Phe Leu Glu Ala  
 50 55 60  
 Leu Gln Leu Phe Asp Arg Asp Trp Lys Lys Ile Glu Asp Phe Val Gly  
 65 70 75 80  
 Ser Lys Thr Val Ile Gln Ile Arg Ser His Ala Gln Lys Tyr Phe Leu  
 85 90 95  
 Lys Val Gln Lys Asn Gly Ala Val Ala His Val Pro Pro Pro Arg Pro  
 100 105 110  
 Lys Arg Lys Ala Ala His Pro Tyr Pro Gln Lys Ala Ser Lys Asn Val  
 115 120 125  
 Leu Val Pro Leu Gln Ala Ser Met Ala Gln Pro Ser Ser Thr Asn Pro  
 130 135 140  
 Ala Phe Thr Ile Thr Pro  
 145 150

<210> 2201  
 <211> 171  
 <212> PRT  
 <213> Eucalyptus grandis

<400> 2201  
 Met Gly Arg Ser Pro Cys Cys Glu Ser Glu His Met Asn Lys Gly Ala  
 1 5 10 15  
 Trp Ser Lys Glu Glu Asp Glu Arg Leu Ile Ala Tyr Ile Lys Arg His  
 20 25 30  
 Gly Glu Gly Cys Trp Arg Ser Leu Pro Lys Ala Ala Gly Leu Leu Arg  
 35 40 45

```

Cys Gly Lys Ser Cys Arg Leu Arg Trp Ile Asn Tyr Leu Arg Pro Asp
 50          55          60
Leu Lys Arg Gly Asn Phe Ser Asp Glu Glu Asp Glu Leu Ile Ile Thr
 65          70          75          80
Leu His Ser Leu Leu Gly Asn Lys Trp Ser Leu Ile Ala Ala Arg Leu
          85          90          95
Pro Gly Arg Thr Asp Asn Glu Ile Lys Asn Tyr Trp Asn Thr His Ile
          100          105          110
Lys Arg Lys Leu His Ala Arg Gly Ile Asp Pro Gln Thr His Arg Pro
          115          120          125
Leu Arg Leu His Gln His Cys Trp Cys Trp Cys Cys His Phe Thr
          130          135          140
Leu Ser Val Leu Thr Leu Thr Thr Ala Ala Thr Arg Pro Arg Leu Thr
          145          150          155          160
Arg Arg Leu Val Lys Asn Tyr His His His Gln
          165          170

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<210> 2202
<211> 98
<212> PRT
<213> Eucalyptus grandis

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<400> 2202
Met Asn Ser Pro Leu Ala Gln Leu Val Asn Pro Arg Arg Met His Thr
 1          5          10          15
Tyr Glu Pro Phe Asp Gln Phe Pro Met Trp Gly Asp Thr Phe Lys Ala
          20          25          30
Asp Lys Val Lys Asn Leu Glu Ala Ser Ser Ser Val Ile Val His Ala
          35          40          45
Val Asp Asp Gly Leu Asp Lys Lys Phe Glu Tyr Val Ser His Glu Ser
          50          55          60
Ala Glu Asn Ser Ser Ser Arg Ser Asp Gln Glu Ala Asn Arg Pro Asp
          65          70          75          80
Lys Val Gln Arg Arg Leu Ala Gln Asn Arg Glu Ala Ala Arg Lys Ser
          85          90          95
Arg Leu

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<210> 2203
<211> 111
<212> PRT
<213> Eucalyptus grandis

```

```

<400> 2203
Met Asn Ser Pro Leu Ala Gln Leu Val Asn Pro Arg Arg Met His Thr
 1          5          10          15
Tyr Glu Pro Phe Asp Gln Phe Pro Met Trp Gly Asp Thr Phe Lys Ala
          20          25          30
Asp Lys Val Lys Asn Leu Glu Ala Ser Ser Ser Val Ile Val His Ala
          35          40          45
Val Asp Asp Gly Leu Asp Lys Lys Phe Glu Tyr Val Ser His Glu Ser
          50          55          60
Ala Glu Asn Ser Ser Ser Arg Ser Asp Gln Glu Ala Asn Arg Pro Asp
          65          70          75          80
Lys Val Gln Arg Arg Leu Ala Gln Asn Arg Glu Ala Ala Arg Lys Ser
          85          90          95
Arg Leu Arg Lys Lys Lys Tyr Val Gln Gln Leu Glu Ser Ser Arg
          100          105          110

```

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<210> 2204
<211> 162

```

&lt;212&gt; PRT

&lt;213&gt; Eucalyptus grandis

&lt;400&gt; 2204

```

Met Ala Ser Ser Ser Val Ala Ser Ala Arg Lys Asp Ala Asp Arg
 1          5          10          15
Ile Lys Gly Pro Trp Ser Pro Glu Glu Asp Glu Ala Leu Gln Arg Leu
          20          25          30
Val Gln Ser Tyr Gly Pro Arg Asn Trp Ser Leu Ile Ser Lys Ser Ile
          35          40          45
Pro Gly Arg Ser Gly Lys Ser Cys Arg Leu Arg Trp Cys Asn Gln Leu
          50          55          60
Ser Pro Gln Val Glu His Arg Pro Phe Thr Pro Glu Glu Asp Glu Ala
65          70          75          80
Ile Val Arg Ala His Ala Arg Phe Gly Asn Lys Trp Ala Thr Ile Ala
          85          90          95
Arg Leu Leu Asn Gly Arg Thr Asp Asn Ala Val Lys Asn His Trp Asn
          100          105          110
Ser Thr Leu Lys Arg Lys Cys Ser Ser Thr Cys Ser Ala Gly Gly Asp
          115          120          125
Asp Ala Asp Ala Leu Ala Glu Gln Gln Pro Leu Lys Arg Ser Ala Ser
          130          135          140
Leu Gly Thr Pro Thr Gly Gly Asn Asn Ala Val Ser Asp Leu Phe Phe
145          150          155          160
Ser Pro

```

&lt;210&gt; 2205

&lt;211&gt; 92

&lt;212&gt; PRT

&lt;213&gt; Eucalyptus grandis

&lt;400&gt; 2205

```

Met Ala Lys Glu Lys Ile Lys Ile Lys Lys Ile Asp Asn Leu Thr Ala
 1          5          10          15
Arg Gln Val Thr Phe Ser Lys Arg Arg Arg Gly Leu Ile Lys Lys Ala
          20          25          30
Glu Glu Leu Ser Val Leu Cys Asp Ala Asp Val Ser Leu Ile Val Phe
          35          40          45
Ser Ala Thr Gly Lys Leu Tyr Asp Phe Ser Ser Ser Arg Gln Met Lys
          50          55          60
Gly Glu Asp Leu Glu Gly Leu Asn Val Glu Glu Leu Asp Gln Leu Glu
65          70          75          80
Lys Lys Leu Glu Ala Gly Leu Ser Leu Val Ile Lys
          85          90

```

&lt;210&gt; 2206

&lt;211&gt; 148

&lt;212&gt; PRT

&lt;213&gt; Eucalyptus grandis

&lt;400&gt; 2206

```

Met Arg Lys Pro Asp Ala Ser Gly Lys Asn Ser Ser Asn Ser Asn Ala
 1          5          10          15
Asn Lys Leu Arg Lys Gly Leu Trp Ser Pro Glu Glu Asp Asp Lys Leu
          20          25          30
Met Asn Tyr Met Leu Asn Asn Gly Gln Gly Cys Trp Ser Asp Val Ala
          35          40          45
Arg Asn Ala Gly Leu Gln Arg Cys Gly Lys Ser Cys Arg Leu Arg Trp
          50          55          60
Ile Asn Tyr Leu Arg Pro Asp Leu Lys Arg Gly Ala Phe Ser Pro Gln

```

[illegible]

```
<210> 2207
<211> 73
<212> PRT
<213> Eucalyptus grandis
```

[illegible]

```
<210> 2208
<211> 147
<212> PRT
<213> Eucalyptus grandis
```

[illegible]

```
<210> 2209
<211> 115
<212> PRT
<213> Eucalyptus grandis
```

&lt;400&gt; 2209

```

Phe Phe Leu Tyr Ile Ile Ser Leu Phe Leu Val Arg Glu Asn Ser Glu
 1           5           10           15
Arg Ser Arg Glu Gly Thr Ser Ser Asn Gly Asp Gly Lys Ser Glu Val
          20           25           30
Gln Gly Lys Val Ala Gly Glu Val Asp Ala Ala Ser Glu Asn Val Ser
          35           40           45
Gly Gly Ala Ile Glu Arg Pro Arg Ala Thr Gly Lys Leu Ala Ala Pro
 50           55           60
Val Asn Ser Pro Ser Met Ala Ser Ser Leu Asp Leu Lys Asn Ser Cys
 65           70           75           80
Met Asp Ala Asn Ala Asn Pro Val Ser Ile Leu Gln Pro Gly Val Val
          85           90           95
Pro Pro Glu Ala Trp Leu Gln Asn Glu Arg Glu Leu Lys Arg Glu Arg
          100          105          110
Arg Glu Gln
          115

```

&lt;210&gt; 2210

&lt;211&gt; 192

&lt;212&gt; PRT

&lt;213&gt; Eucalyptus grandis

&lt;400&gt; 2210

```

Met Gly Arg Gln Pro Cys Cys Asp Lys Ser Gly Val Lys Lys Gly Pro
 1           5           10           15
Trp Thr Ala Glu Glu Asp Lys Lys Leu Ile Asn Phe Ile Leu Thr Asn
          20           25           30
Gly His Cys Cys Trp Arg Ala Val Pro Lys Leu Ala Gly Leu Arg Arg
          35           40           45
Cys Gly Lys Ser Cys Arg Leu Arg Trp Thr Asn Tyr Leu Arg Pro Asp
 50           55           60
Leu Lys Arg Gly Leu Leu Ser Glu Ala Glu Glu Gln Leu Val Ile Asp
 65           70           75           80
Leu His Ala Arg Leu Gly Asn Arg Trp Ser Lys Ile Ala Ala Arg Leu
          85           90           95
Pro Gly Arg Thr Asp Asn Glu Ile Lys Asn His Trp Asn Thr His Ile
          100          105          110
Lys Lys Lys Leu Leu Lys Met Gly Ile Asp Pro Val Thr His Glu Pro
          115          120          125
Leu Asn Lys Pro Gln Lys Thr Pro Ser Glu His Asp Pro Glu Ala Ser
          130          135          140
Leu Ser Ser Ser Gln Ala Asp Pro Thr Ser Glu Ser Pro Ala Asn Thr
          145          150          155          160
His Gln Pro Asn Asn Ala His Ala Asp Glu Val Gln Leu Val Leu Val
          165          170          175
Leu Pro Val Gly Leu Val Arg Arg Glu Leu Leu Leu Arg Gln Gly Arg
          180          185          190

```

&lt;210&gt; 2211

&lt;211&gt; 89

&lt;212&gt; PRT

&lt;213&gt; Pinus radiata

&lt;400&gt; 2211

```

Leu Ser Arg Asn Met Asp Asp Val Phe Val Gln Arg Cys Asn Arg Asn
 1           5           10           15
Phe Thr Ala Arg Asp Arg Leu Ile Ser Lys Glu Arg Arg Asn Phe Gly
          20           25           30
Trp Val Cys Gly Val Thr Glu Glu Glu Glu Glu Leu Ile Ile Arg Met
          35           40           45

```

Tyr Lys Leu Val Gly Asn Arg Trp Ser Leu Ile Ala Gly Arg Leu Pro  
 50 55 60  
 Gly Arg Lys Ala Glu Glu Ile Glu Arg Tyr Trp Lys Met Arg Ser Ile  
 65 70 75 80  
 Asn Ala Ala Pro Leu Lys Pro Asn Thr  
 85

<210> 2212  
 <211> 237  
 <212> PRT  
 <213> Pinus radiata

<400> 2212  
 Met Val Lys Glu Leu Leu Met Met Cys Ser Asn Cys Gly His Ser Gly  
 1 5 10 15  
 His Ser Ser Arg Ala Cys Pro Asp Arg Gly Ser Val Lys Leu Phe Gly  
 20 25 30  
 Val Arg Leu Ile Ala Thr Asp Asp Gly Met Ala Cys Met Arg Lys Ser  
 35 40 45  
 Leu Ser Met Gly Asn Leu Gly His Tyr Arg Ser Leu Tyr Asn Val Asn  
 50 55 60  
 His Cys Ser Gly Thr Ser Glu Cys Gly Ser Ala Asp Gln Asp Gly Tyr  
 65 70 75 80  
 Leu Ser Asp Gly Phe Val His Ser Ser Ser Asn Ala Arg Glu Arg Lys  
 85 90 95  
 Lys Gly Val Pro Trp Ser Glu Glu Glu His Arg Met Phe Leu Tyr Gly  
 100 105 110  
 Leu Glu Lys Leu Gly Lys Gly Asp Trp Arg Gly Ile Ser Arg Asn Phe  
 115 120 125  
 Val Thr Thr Arg Thr Pro Thr Gln Val Ala Ser His Ala Gln Lys Tyr  
 130 135 140  
 Phe Leu Arg Gln Ser Asn Leu Asn Lys Arg Lys Arg Arg Ser Ser Leu  
 145 150 155 160  
 Phe Asp Met Cys Pro His Asp Ser His Val Thr Ser Ser Phe Arg Arg  
 165 170 175  
 Glu Asp Ser Leu Gly Asn Leu Tyr Glu Phe Ser Pro Lys His Ser Ala  
 180 185 190  
 Leu Gly Val Ser Pro Asn Phe Glu Leu Tyr Ser Phe Gly Val Ser Pro  
 195 200 205  
 Thr Leu Ser Leu Gly Arg Ser Leu Gln Pro Val Glu Ala Val Leu Glu  
 210 215 220  
 Glu Lys Ala Ala His Tyr His Pro Val Asn Ser Glu Glu  
 225 230 235

<210> 2213  
 <211> 55  
 <212> PRT  
 <213> Pinus radiata

<400> 2213  
 Trp Leu Gln Leu Cys Ser Gly Ile Asp Glu His Ala Ala Gly Phe Cys  
 1 5 10 15  
 Ser Gln Leu Val Phe Ala Pro Ile Asp Ala Ser Phe Ala Asp Asp Ala  
 20 25 30  
 Pro Leu Ala Pro Ser Gly Phe Arg Val Ile Pro Leu Glu Ser Gly Ser  
 35 40 45  
 Glu Cys Phe Ser Ser Lys Thr  
 50 55

<210> 2214  
 <211> 119

&lt;212&gt; PRT

&lt;213&gt; Pinus radiata

&lt;400&gt; 2214

Gly Val Leu Lys Phe Pro Cys Phe Asp Leu Ile Thr Met Asn Leu Met  
 1 5 10 15  
 Glu Ser Phe Glu Ala Lys Gly Lys Gly Glu Lys Arg Arg Thr Val Arg  
 20 25 30  
 Gly Lys Thr Gln Leu Lys Arg Ile Glu Asn Gly Thr Ser Arg Gln Val  
 35 40 45  
 Thr Phe Cys Lys Arg Arg Asn Gly Leu Leu Lys Lys Ala Tyr Glu Leu  
 50 55 60  
 Ser Val Leu Cys Asp Ala Glu Val Ala Leu Ile Val Phe Ser Pro Arg  
 65 70 75 80  
 Gly Lys Leu Tyr Glu Phe Ala Asn Pro Ser Met Gln Lys Met Leu Glu  
 85 90 95  
 Arg Tyr Glu Lys Cys Ser Glu Gly Ser Asn Pro Thr Ser Thr Ala Lys  
 100 105 110  
 Glu Gln Asp Val Gln Cys Leu  
 115

&lt;210&gt; 2215

&lt;211&gt; 146

&lt;212&gt; PRT

&lt;213&gt; Pinus radiata

&lt;400&gt; 2215

Pro Lys Gln Asp Gln Lys Leu Val Thr Tyr Ile Gln Glu His Gly His  
 1 5 10 15  
 Gly Ser Trp Arg Ala Leu Pro Gln Lys Ala Gly Leu Leu Arg Cys Gly  
 20 25 30  
 Lys Ser Cys Arg Leu Arg Trp Ala Asn Tyr Leu Arg Pro Asp Ile Lys  
 35 40 45  
 Arg Gly Lys Phe Thr Val Gln Glu Glu Gln Thr Ile Ile Gln Leu His  
 50 55 60  
 Ala Leu Leu Gly Asn Arg Trp Ser Ala Ile Ala Thr His Leu Pro Lys  
 65 70 75 80  
 Arg Thr Asp Asn Glu Ile Lys Asn Tyr Trp Asn Thr His Leu Lys Lys  
 85 90 95  
 Arg Leu Leu Gln Met Gly Ile Asp Pro Val Thr His Lys Pro Lys Ser  
 100 105 110  
 Glu Ser Ile Met Val Pro Gly Val Gln Ser Ser Asn Gly Ser Ser Asn  
 115 120 125  
 Leu Ser His Met Ala Gln Trp Glu Ser Ala Arg Leu Glu Ala Glu Ser  
 130 135 140  
 Lys Ala  
 145

&lt;210&gt; 2216

&lt;211&gt; 106

&lt;212&gt; PRT

&lt;213&gt; Pinus radiata

&lt;400&gt; 2216

Gly Ile Phe Ile Gly Gly Ser Cys Val Gly Gly Asp Gln Ser His Ser  
 1 5 10 15  
 Met Ser Gly Asn Gly Ala Leu Ala Phe Asp Met Glu Tyr Ala Arg Trp  
 20 25 30  
 Leu Asp Glu His His Arg Gln Ile Asn Glu Leu Arg Ser Ala Val Asn  
 35 40 45  
 Ser His Val Gly Asp Asn Glu Leu Arg Gly Leu Val Glu Gly Val Met

50		55		60											
Gly	His	Tyr	Asp	Glu	Ile	Phe	Arg	Leu	Lys	Thr	Val	Ala	Ser	Lys	Ala
65				70					75						80
Asp	Val	Phe	His	Leu	Val	Ser	Gly	Met	Trp	Lys	Thr	Pro	Ala	Glu	Arg
			85						90					95	
Cys	Phe	Met	Trp	Met	Gly	Gly	Phe	Arg	Pro						
			100					105							

<210> 2217  
 <211> 114  
 <212> PRT  
 <213> Pinus radiata

<400> 2217

Asn	Arg	Arg	Ala	Arg	Thr	Lys	Trp	Lys	Arg	Asn	Glu	Val	Glu	Cys	Asp
1			5						10					15	
Asn	Leu	Lys	Arg	Cys	Cys	Glu	Ser	Leu	Arg	Glu	Glu	Asn	Arg	Arg	Leu
			20					25					30		
Glu	Lys	Glu	Val	Gln	Ser	Leu	Arg	Ala	Met	Lys	Val	Pro	Gln	Ser	Pro
		35					40					45			
Asn	Ser	Met	Pro	Leu	Ala	Ala	Thr	Leu	Ala	Met	Cys	Pro	Ala	Cys	
	50					55				60					
Glu	Gly	Leu	Ala	Ile	Lys	Asn	Arg	Gly	Ala	Ala	Thr	Ser	Ser	Thr	Ala
65				70					75						80
Lys	Ser	Gln	Gln	Ser	Leu	Leu	Thr	Ile	Met	Gly	Ile	Gly	Asp	Val	Asn
			85					90					95		
Met	Ile	Ser	Lys	Asn	Asn	Gln	Thr	Pro	Ser	Met	Gly	Met	Gly	Asp	Glu
			100					105					110		
Met	Asn														

<210> 2218  
 <211> 126  
 <212> PRT  
 <213> Pinus radiata

<400> 2218

Trp	Asn	Leu	Ile	Glu	Glu	Lys	Ile	Glu	Gly	Arg	Ser	Gly	Lys	Ser	Cys
1			5					10						15	
Arg	Leu	Arg	Trp	Phe	Asn	Gln	Leu	Asp	Pro	Arg	Ile	Asn	Arg	Arg	Pro
			20					25					30		
Phe	Thr	Glu	Glu	Asp	Glu	Glu	Lys	Leu	Leu	Ala	Ala	His	Arg	Leu	Tyr
		35					40					45			
Gly	Asn	Lys	Trp	Ala	Met	Ile	Ala	Arg	Leu	Phe	Pro	Gly	Arg	Thr	Asp
	50					55				60					
Asn	Ala	Val	Lys	Asn	His	Trp	His	Val	Ile	Met	Ala	Arg	Arg	Tyr	Arg
65				70					75						80
Glu	Gln	Ser	Ser	Ala	Phe	Gly	Arg	Arg	Lys	Leu	Pro	Gln	Val	His	Arg
			85					90					95		
Arg	Glu	Lys	Arg	Ala	Cys	Thr	Asp	Asp	Glu	Thr	Arg	Met	Gly	Ser	Ser
			100					105					110		
Ser	Cys	Asn	Met	Trp	Val	Asp	Lys	Tyr	Ser	Ser	Leu	Lys	Ser		
		115					120					125			

<210> 2219  
 <211> 123  
 <212> PRT  
 <213> Pinus radiata

<400> 2219

Leu	Ile	Ala	Tyr	Ile	Arg	Ala	Asn	Gly	Glu	Gly	Ser	Trp	Arg	Ser	Leu
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----



```

1           5           10           15
Pro Lys Ala Ala Gly Leu Pro Arg Cys Gly Lys Ser Cys Arg Leu Arg
20
Trp Ile Asn Tyr Leu Arg Pro Asp Leu Lys Arg Gly Ser Phe Thr Glu
35
Glu Glu Asp Glu Leu Ile Ile Lys Leu His Ser Val Val Gly Asn Lys
50
Trp Ser Leu Ile Ala Gly Arg Leu Pro Gly Arg Thr Asp Asn Glu Ile
65
Lys Asn Tyr Trp Asn Thr His Ile Lys Arg Lys Leu Leu Ile Lys Gly
85
Ile Asp Pro Gln Ser His Arg Pro Leu Gly Gln Pro Tyr Ser Ser Asn
100
Asn Met Pro Val Ser Arg Leu Phe Leu Thr Ser
115

```

<210> 2220  
 <211> 176  
 <212> PRT  
 <213> Pinus radiata

```

<400> 2220
Leu Ser Asn Ile Glu Pro Lys Gln Ile Lys Val Trp Phe Gln Asn Arg
1           5           10           15
Arg Cys Arg Glu Lys Gln Arg Lys Glu Ala Ser Arg Leu Gln Thr Val
20
Asn Arg Lys Leu Thr Ala Met Asn Lys Leu Leu Met Glu Glu Asn Asp
35
Arg Leu Gln Lys Gln Val Ser Gln Leu Val Tyr Glu Asn Gly Tyr Met
50
Arg Gln Gln Leu Gln Asn Ala Ser Val Ala Ala Thr Asp Thr Ser Cys
65
Glu Ser Val Val Thr Ser Gly Gln His Gln His Asn Pro Thr Pro Gln
85
His Pro Pro Arg Asp Ala Ser Pro Ala Gly Leu Leu Ser Ile Ala Glu
100
Glu Thr Leu Thr Glu Phe Leu Ser Lys Ala Lys Gly Ala Ala Val Asp
115
Trp Val Gln Met Pro Gly Met Lys Pro Gly Pro Asp Ser Ile Gly Ile
130
Val Ala Ile Ser Asn Thr Cys Asn Gly Val Ala Ala Arg Ala Cys Gly
145
Leu Val Gly Leu Asp Pro Thr Lys Val Ala Glu Ile Leu Lys Asp Arg
165

```

<210> 2221  
 <211> 119  
 <212> PRT  
 <213> Pinus radiata

```

<400> 2221
Leu Tyr Gln Cys Gln Ala Leu Phe Glu Asn Gly Ala Val Glu Lys Leu
1           5           10           15
Ser Arg Thr Tyr Asn Asp Leu Tyr Asp Asp Leu Lys Glu Glu Ile Leu
20
Ser Trp Leu Pro Val Glu Cys Val Cys Arg Phe Arg Ser Val Ser Lys
35
Gln Trp Asn Asn Leu Leu Ser Ser His Asn Phe Ile Lys Lys Val Trp
50
Arg Lys Lys Pro Ala Asn Met Asn Pro Trp Leu Val Leu His Pro Val
65

```

[illegible]

```
<210> 2222
<211> 124
<212> PRT
<213> Pinus radiata
```

<400> 2222															
Asp 1	Lys	Lys	Leu	Ile 5	Asn	Phe	Leu	Thr	Thr 10	His	Gly	Gln	Cys	Cys 15	Trp
Arg	Thr	Val	Pro 20	Glu	Leu	Ala	Gly	Ile 25	Ser	Arg	Cys	Gly	Lys 30	Ser	Cys
Arg	Leu	Arg 35	Trp	Thr	Asn	Tyr	Leu 40	Arg	Pro	Asp	Leu	Lys 45	Arg	Gly	Val
Phe 50	Ser	Glu	Ser	Glu	Glu	Lys 55	Leu	Ile	Leu	Asp	Leu 60	His	Ser	Arg	Val
Gly 65	Asn	Arg	Trp	Ser	Lys 70	Ile	Ala	Ser	Phe	Leu 75	Pro	Gly	Arg	Thr	Asp 80
Asn	Glu	Leu	Lys 85	Asn	Tyr	Trp	Asn	Thr	His 90	Ile	Lys	Lys	Lys	Leu 95	Lys
Arg	Met	Gly	Leu 100	Asp	Pro	Gly	Asp	Ala 105	Gln	Ala	Ile	Ser	Glu 110	Thr	Leu
Pro	Gln	Pro 115	Ala	Pro	Val	Ala	Glu 120	Asn	Asn	Asp	Val				

```
<210> 2223
<211> 175
<212> PRT
<213> Pinus radiata
```

	<400> 2223															
Met 1	Lys	Gly	Lys	Ser 5	Pro	Gly	His	Asp	Glu 10	Pro	Asp	Arg	Ile	Lys 15	Gly	
Pro	Trp	Ser	Pro 20	Glu	Glu	Asp	Ala	Ala 25	Leu	Gln	His	Phe	Val 30	Gln	Lys	
Tyr	Gly	Pro 35	Arg	Asn	Trp	Ser	Leu 40	Ile	Ser	Lys	Ala	Ile 45	Pro	Gly	Arg	
Ser	Gly 50	Lys	Ser	Cys	Arg	Leu 55	Arg	Trp	Cys	Asn	Gln 60	Leu	Ser	Pro	Gln	
Val 65	Glu	His	Arg	Pro	Phe 70	Thr	Pro	Glu	Glu	Asp 75	Ala	Thr	Ile	Val 80	Arg	
Ala	His	Ala	Gln	His 85	Gly	Asn	Lys	Trp	Ala 90	Thr	Ile	Ala	Arg	Met 95	Leu	
Ser	Gly	Arg	Thr 100	Asp	Asn	Ala	Ile	Lys 105	Asn	His	Trp	Asn	Ser 110	Thr	Leu	
Arg	Arg	Arg 115	Cys	Gln	Gly	Gly	Gly 120	Ala	Leu	Val	Ile	Asp 125	Asp	Glu	Ile	
Ser	Ser 130	Gly	Ala	Asp	Gly	Phe 135	Arg	Lys	Arg	Asn	Leu 140	Ser	Glu	Asp	Ala	
Asp 145	Ala	Ser	Arg	Lys	Phe 150	Lys	Lys	Leu	Ser	Leu 155	Gly	Thr	Thr	Thr 160	Thr	
Thr	Thr	Thr	Thr 165	Glu	Pro	Ser	Thr	Ser	Ser 170	Ala	Ser	Asp	Arg	Ser 175		

<210> 2224  
<211> 103

&lt;212&gt; PRT

&lt;213&gt; Pinus radiata

&lt;400&gt; 2224

Met	Ser	Ser	Arg	Ser	Cys	Ser	Leu	Cys	Gly	Leu	Asn	Gly	His	Asn	Ser
1				5					10					15	
Arg	Thr	Cys	Val	Gly	Ser	Gly	Val	Met	Leu	Phe	Gly	Val	Arg	Leu	Thr
			20					25					30		
Asp	Gly	Pro	Met	Arg	Lys	Ser	Ala	Ser	Met	Asn	Asn	Leu	Ser	Asn	Leu
			35				40					45			
Ser	Gln	Tyr	Glu	His	Ser	Asp	Pro	Ala	Glu	Val	Ala	Ala	Glu	Gly	Phe
	50					55					60				
Asp	Gly	Tyr	Val	Ser	Asp	Asp	Leu	Val	His	Ser	Ser	Ser	Asn	Ala	Arg
65					70					75				80	
Glu	Arg	Lys	Arg	Gly	Val	Pro	Trp	Thr	Glu	Glu	Glu	His	Arg	Met	Phe
				85					90					95	
Leu	Val	Gly	Leu	Gln	Arg	Val									

&lt;210&gt; 2225

&lt;211&gt; 96

&lt;212&gt; PRT

&lt;213&gt; Pinus radiata

&lt;400&gt; 2225

Met	Ser	Ser	Arg	Ser	Cys	Ser	Leu	Cys	Gly	Leu	Asn	Gly	His	Asn	Ser
1				5					10					15	
Arg	Thr	Cys	Val	Gly	Ser	Gly	Val	Met	Leu	Phe	Gly	Val	Arg	Leu	Thr
			20					25					30		
Asp	Gly	Pro	Met	Arg	Lys	Ser	Ala	Ser	Met	Asn	Asn	Leu	Ser	Asn	Leu
			35				40					45			
Ser	Gln	Tyr	Glu	His	Ser	Asp	Pro	Ala	Glu	Val	Ala	Ala	Glu	Gly	Phe
	50					55					60				
Asp	Gly	Tyr	Val	Ser	Asp	Asp	Leu	Val	His	Ser	Ser	Ser	Asn	Ala	Arg
65					70					75				80	
Glu	Arg	Lys	Arg	Gly	Val	Pro	Trp	Thr	Glu	Glu	Glu	His	Arg	Met	Phe
				85					90					95	

&lt;210&gt; 2226

&lt;211&gt; 131

&lt;212&gt; PRT

&lt;213&gt; Pinus radiata

&lt;400&gt; 2226

Arg	Gly	Arg	Val	Gln	Leu	Arg	Arg	Ile	Glu	Asn	Lys	Ile	Ser	Arg	Gln
1				5					10					15	
Val	Thr	Phe	Ser	Lys	Arg	Arg	Asn	Gly	Leu	Met	Lys	Lys	Ala	Ala	Glu
			20					25					30		
Leu	Ser	Ile	Leu	Cys	Asp	Ala	Glu	Val	Ala	Leu	Ile	Val	Phe	Ser	Asn
			35				40					45			
Lys	Asp	Lys	Leu	Tyr	Glu	Phe	Ala	Ser	Ser	Ser	Met	Thr	Lys	Ile	Leu
	50					55					60				
Glu	Arg	Tyr	Arg	Lys	Arg	Ser	Asn	Leu	Ile	Gln	Asp	Ile	Gly	Lys	Asp
65					70					75				80	
Pro	Gln	Asn	Ser	Asp	Ile	Glu	Leu	Thr	Arg	Leu	Lys	Glu	Glu	Val	Asp
				85					90					95	
Arg	Leu	Gln	Arg	Ser	Arg	Arg	His	Leu	Leu	Gly	Glu	Asp	Leu	His	Gln
				100				105					110		
Leu	Gly	Ala	Thr	Asp	Leu	Gln	His	Leu	Glu	Gln	Gln	Leu	Glu	Glu	Ala
		115					120					125			
Leu	Gln	Lys													

130

<210> 2227  
 <211> 49  
 <212> PRT  
 <213> Pinus radiata

<400> 2227  
 Met Pro Ser Ile Met Glu Lys Gln Asn Ser Gly Glu Asp Ser Asp Ser  
 1 5 10 15  
 Lys Gly Gln Leu Asp Asn Gly Lys Tyr Val Arg Tyr Thr Asn Glu Gln  
 20 25 30  
 Val Glu Thr Leu Glu Arg Ala Tyr Asn Glu Cys Ser Lys Pro Ser Thr  
 35 40 45  
 Arg

<210> 2228  
 <211> 128  
 <212> PRT  
 <213> Pinus radiata

<400> 2228  
 Lys Ile Glu Asn Thr Thr Ser Arg Gln Val Thr Phe Cys Lys Arg Lys  
 1 5 10 15  
 Asn Gly Leu Leu Lys Lys Ala Tyr Glu Leu Ser Leu Leu Cys Asp Ala  
 20 25 30  
 Glu Val Ala Leu Leu Ile Phe Ser Thr Ser Gly Arg Leu Tyr Glu Phe  
 35 40 45  
 Ala Asn Lys Ser Val Ser Ala Thr Thr Glu Arg Tyr Met Arg Thr Tyr  
 50 55 60  
 Ala Glu Asn Met Pro Gln Ser Arg Ala Leu Tyr Pro Asp Cys His His  
 65 70 75 80  
 Trp Gln Glu Glu Val Arg Lys Leu Thr Gln Gln Arg Asp Ser Leu Thr  
 85 90 95  
 Asn Ser Ile Arg Gln Ile Met Gly Glu Gly Leu Glu Ser Leu Ser Met  
 100 105 110  
 Lys Glu Leu Lys His Ile Gln Val Gln Leu Glu Lys Ser Ile Ser Cys  
 115 120 125

<210> 2229  
 <211> 181  
 <212> PRT  
 <213> Pinus radiata

<400> 2229  
 Glu Asp Leu Asp Asp Cys Ile His Pro Pro Glu Lys Lys Arg Arg Leu  
 1 5 10 15  
 Thr Ala Asp Gln Val Gln Phe Leu Glu Arg Ser Phe Glu Ile Glu Asn  
 20 25 30  
 Lys Leu Glu Pro Glu Arg Lys Ile Gln Leu Ala Lys Glu Leu Gly Leu  
 35 40 45  
 Gln Pro Arg Gln Val Ala Val Trp Phe Gln Asn Arg Arg Ala Arg Trp  
 50 55 60  
 Lys Thr Lys Gln Leu Glu Arg Asp Tyr Asp Ile Leu Lys Ser Arg Tyr  
 65 70 75 80  
 Glu Asn Leu Arg Val Asp Tyr Asp Ser Leu Leu Lys Glu Lys Asp Lys  
 85 90 95  
 Leu Arg Ala Glu Val Thr Phe Leu Thr Asp Lys Leu His Asp Ser Asp  
 100 105 110  
 His Glu Ala Leu Thr Lys Asp Ser Glu Ser Ala Asp Lys Lys Val Tyr

115	120	125
Pro Gln Pro Ala Ser His Ser Asp Cys Val Gly Glu Pro Glu Arg Ser		
130	135	140
Thr Ala Ala Lys Asp Thr Pro Pro Gly Cys Lys His Glu Asp Leu Leu		
145	150	155
Ser Ser Gly Thr Asp Ser Ser Gly Val Leu Asp Glu Asp Ser Pro His		
	165	170
His Val Asp Cys Gly		175
180		

<210> 2230  
 <211> 107  
 <212> PRT  
 <213> Pinus radiata

<400> 2230

Met Gly Arg Ser Pro Cys Cys Glu Lys Ala His Thr Asn Lys Gly Ala	
1	5
Trp Thr Lys Glu Glu Asp Asp Arg Leu Ile Ala His Ile Arg Thr His	10
	20
Gly Glu Gly Cys Trp Arg Ser Leu Pro Lys Ala Ala Gly Leu Met Arg	25
	30
Cys Gly Lys Ser Cys Arg Leu Arg Trp Ile Asn Tyr Leu Arg Pro Asp	35
	40
Leu Lys Arg Gly Asn Phe Ser Glu Glu Glu Asp Glu Leu Val Ile Lys	45
	50
Leu His Ser Leu Leu Gly Asn Lys Trp Ser Leu Ile Ala Gly Arg Leu	55
	60
Pro Gly Arg Thr Asp Asn Glu Ile Lys Asn Tyr	65
	70
	75
	80
	85
	90
	95
	100
	105

<210> 2231  
 <211> 125  
 <212> PRT  
 <213> Pinus radiata

<400> 2231

Lys Lys Gly Val Pro Trp Thr Glu Glu Glu His Arg Gln Phe Leu Met	
1	5
Gly Leu Arg Lys Tyr Gly Lys Gly Asp Trp Arg Ser Ile Ser Arg Asn	10
	20
Phe Val Val Ser Arg Thr Pro Thr Gln Val Ala Ser His Ala Gln Lys	25
	30
Tyr Tyr Ile Arg Leu Gly Ser Asp Asn Lys Asn Lys Arg Arg Ser Ser	35
	40
Ile His Asp Ile Thr Thr Val His Gly Thr Asp Arg Met Pro Ser Pro	45
	50
Leu Leu His Val Ser Asn Arg Gln Thr Asn Ser Pro Ser Thr Gln Ala	55
	60
Glu Met Asn His Ser Pro Cys Leu Asp Ile Ser Ile Ser Asp Phe Thr	65
	70
	75
	80
	85
	90
	95
	100
	105
	110
Arg Thr Ser Asn Lys Leu Phe Gly Thr Ser Asn Arg Trp	115
	120
	125

<210> 2232  
 <211> 150  
 <212> PRT  
 <213> Pinus radiata

<400> 2232

Met Thr Arg Lys Cys Ser His Cys Gly Asn Asn Gly His Asn Ser Arg
---

```

      1              5              10              15
Thr Cys Pro Asn Arg Gly Gly Val Lys Leu Phe Gly Val Arg Leu Thr
      20              25              30
Asp Gly Pro Ile Arg Lys Ser Ala Ser Met Gly Asn Leu Met Met Met
      35              40              45
Ser Asn Pro Ser Ser Pro Ala Asp Pro Ser Glu Pro Ala Ser Ala Ala
      50              55              60
Ala Ala Ala Ala Ala Ala Ala Ala Ser Gly Tyr Leu Ser Asp Gly Leu
      65              70              75              80
Val Glu Ala Ser Thr Ser Ser Asn Ser Arg Glu Arg Lys Lys Gly Val
      85              90              95
Pro Trp Thr Glu Glu Glu His Arg Met Phe Leu Leu Gly Leu Gln Lys
      100              105              110
Leu Gly Lys Gly Asp Trp Arg Gly Ile Ala Arg Asn Phe Val Ile Thr
      115              120              125
Arg Thr Pro Thr Gln Val Ala Ser His Ala Gln Lys Tyr Phe Ile Arg
      130              135              140
Gln Ser Asn Met Thr Arg
      145              150

```

<210> 2233  
 <211> 102  
 <212> PRT  
 <213> Pinus radiata

```

      <400> 2233
Met Lys Met Ser Leu Pro Ser Asn Val Leu Thr Leu Ser Ala Asp Ser
      1              5              10              15
Asn Ser Asn Ser Asn Ser Ile Ser Ser Gly Asp Glu Leu Ala Ala
      20              25              30
Lys Val Arg Lys Pro Tyr Thr Ile Thr Lys Gln Arg Glu Arg Trp Ser
      35              40              45
Glu Asp Glu His Leu Lys Phe Leu Glu Ala Leu Lys Met Tyr Gly Arg
      50              55              60
Ala Trp Arg Arg Ile Glu Glu His Ile Gly Thr Lys Thr Ala Val Gln
      65              70              75              80
Ile Arg Ser His Ala Gln Lys Phe Phe Ser Lys Leu Val Arg Gly Ser
      85              90              95
Ser Asn Lys Gly Val Ser
      100

```

<210> 2234  
 <211> 85  
 <212> PRT  
 <213> Pinus radiata

```

      <400> 2234
Gly Ile Asp Met Asn Arg Gly Pro Ala Thr Asn Glu Ser Glu Tyr Ser
      1              5              10              15
Ser Val Phe Gln Ala Asp Ala Leu Arg Thr Ile Asp Thr Gly Ser Val
      20              25              30
Val Val Lys Arg Glu Arg Glu Arg Thr Phe Glu Leu Glu Ala Glu Arg
      35              40              45
Asp Arg Thr Cys Asp Val Ser Ser Arg Thr Ser Asp Glu Glu Glu Ile
      50              55              60
Gly Ser Thr Arg Lys Lys Leu Arg Leu Ser Lys Glu Gln Ser Ala Leu
      65              70              75              80
Leu Glu Glu Ser Phe
      85

```

<210> 2235

<211> 115  
 <212> PRT  
 <213> Pinus radiata

<400> 2235  
 Asn Leu Glu Ser Leu Thr Leu Lys Glu Leu Gln Gln Leu Glu Lys Gln  
 1 5 10 15  
 Leu Gly Arg Ala Ile Lys Lys Ile Tyr Asn Lys Lys Met Lys Ile Ile  
 20 25 30  
 Ser Gln Cys Cys Lys Ser Leu Ser Glu Lys Val Arg Ser Leu Glu Glu  
 35 40 45  
 Glu Asn Ser Glu Leu Leu Thr Lys Leu Ile Pro Arg Ala Asp Ser Ser  
 50 55 60  
 Thr Ser Gly Ala Ala Leu Phe Val Asp Thr Ser Met Pro Lys Ser His  
 65 70 75 80  
 Ser Ala Thr Glu Ala Trp Arg Gln Leu Leu Gln Arg Val Leu Val Thr  
 85 90 95  
 Ala Ala Lys Met Ala Thr Thr Pro Pro Ala Arg His Ser Asn Ser Arg  
 100 105 110  
 Pro Asn His  
 115

<210> 2236  
 <211> 88  
 <212> PRT  
 <213> Pinus radiata

<400> 2236  
 Gly Lys Ala Thr Ser Gly Ser Ala Asn Glu Ala Met Ser Gln Ser Gly  
 1 5 10 15  
 Asp Ser Gly Ser Asp Gly Ser Ser Glu Gly Ser Glu Glu Tyr Asn Thr  
 20 25 30  
 Gln Thr Glu Ser Gln Val Ala Arg Lys Arg Ser Phe Asp Gln Met Ile  
 35 40 45  
 Val Asp Gly Ala Asn Ala Gln Ser Thr Asn Ile Gln Ser Tyr Asn Ser  
 50 55 60  
 Gln Ala Gly Glu Pro Tyr Val Thr Ser Gly Gly His Ala Met Gly Asn  
 65 70 75 80  
 Pro Ile Ser Gln Ala Val Ala Ala  
 85

<210> 2237  
 <211> 66  
 <212> PRT  
 <213> Pinus radiata

<400> 2237  
 Gln Leu Lys Trp Lys Glu Arg Ile Leu Thr Glu Glu Asn Leu Phe Leu  
 1 5 10 15  
 Arg Lys Lys Cys Gly Asp Glu His Val Asp Cys Ser Ala Phe Arg Thr  
 20 25 30  
 Pro Pro Ala Gln Leu Arg Ser Ile Gln Asn Ile Asp Val Glu Thr Gln  
 35 40 45  
 Leu Val Ile Arg Pro Pro Thr Val Gln Gln His Pro Asp Val Asp Ser  
 50 55 60  
 Pro Arg  
 65

<210> 2238  
 <211> 176  
 <212> PRT

&lt;213&gt; Pinus radiata

&lt;400&gt; 2238

```

Met Gly Arg Thr Pro Cys Cys Leu Lys Val Gly Leu Asn Arg Gly Pro
 1      5      10      15
Trp Thr Pro Glu Asp Leu Cys Leu Ser Asn Tyr Ile Glu Ala His
 20      25      30
Gly Glu Gly Gly Trp Arg Thr Leu Pro Lys Lys Ala Gly Leu Leu Arg
 35      40      45
Cys Gly Lys Ser Cys Arg Leu Arg Trp Met Asn Tyr Leu Arg Pro Asp
 50      55      60
Val Lys His Gly His Ile Leu Pro Glu Glu Glu Asp Leu Ile Leu Arg
 65      70      75      80
Leu His Arg Leu Leu Gly Asn Arg Trp Ser Leu Ile Ala Gly Arg Met
 85      90      95
Pro Gly Arg Thr Asp Asn Glu Val Lys Asn Tyr Trp Asn Thr His Leu
 100     105     110
Ser Lys Lys Leu Ile Ser Gln Gly Ile Asp Pro Arg Thr His Lys Pro
 115     120     125
Leu Ser Glu Ser Glu Asp Ile Cys Ser Ser Pro Gly Asn Ser Glu Val
 130     135     140
Ser Arg Lys Ser Gln Arg Glu Asn Asn Ala Glu Ile Pro Arg Lys Val
 145     150     155     160
Ala Asp Gly Ala Val Asp Ile Gln Asp Lys Glu Glu Asp Ile Thr Glu
 165     170     175

```

&lt;210&gt; 2239

&lt;211&gt; 105

&lt;212&gt; PRT

&lt;213&gt; Pinus radiata

&lt;400&gt; 2239

```

Met Gly Arg Gly Lys Ile Glu Ile Lys Met Ile Glu Asn Thr Ala Asn
 1      5      10      15
Arg Gln Val Thr Phe Ser Lys Arg Lys Gly Gly Leu Leu Lys Lys Ala
 20      25      30
His Glu Leu Ser Val Leu Cys Asn Ala Glu Ile Ala Leu Ile Val Phe
 35      40      45
Ser Asn Thr Gly Lys Leu His Asp Trp Ser Ser Ser Ser Met Lys Lys
 50      55      60
Val Met Glu Lys Tyr Gln Lys Ser Asp Gln Gly Leu Gly Leu Met Asp
 65      70      75      80
Tyr Gln Gln Gln Gln Leu Leu Cys Glu Met Lys Arg Ile Thr Lys Glu
 85      90      95
Asn Glu Ser Leu Arg Ala Arg Leu Arg
 100     105

```

&lt;210&gt; 2240

&lt;211&gt; 78

&lt;212&gt; PRT

&lt;213&gt; Pinus radiata

&lt;400&gt; 2240

```

Met Ser Asn Gly Arg Leu Cys Glu Asp Leu Asp Arg Ile Lys Gly Pro
 1      5      10      15
Trp Ser Pro Glu Glu Asp Ala Ser Leu Gln Arg Leu Val Gln Lys Tyr
 20      25      30
Gly Pro Arg Asn Trp Thr Leu Ile Ser Lys Gly Ile Pro Gly Arg Ser
 35      40      45
Gly Lys Ser Cys Arg Leu Arg Trp Cys Asn Gln Leu Ser Pro Gln Val
 50      55      60

```



Glu His Arg Pro Phe Thr Pro Ser Glu Asp Ala Ala Ile Leu  
 65 70 75

<210> 2241  
 <211> 67  
 <212> PRT  
 <213> Pinus radiata

<400> 2241  
 Met Gly Arg Ala Leu Gly Arg Thr Glu Ile Lys Arg Ile Glu Asn Glu  
 1 5 10 15  
 Val Ser Arg Asn Val Ser Phe Arg Lys Arg Arg Arg Gly Leu Leu Lys  
 20 25 30  
 Lys Ala Ala Glu Leu Ser Ile Leu Cys Asp Ala Thr Val Gly Val Val  
 35 40 45  
 Val Phe Ser Pro Ala Gly Lys Leu Ser Glu Tyr Ala Ser Thr Ser Glu  
 50 55 60  
 Gln Met Asp  
 65

<210> 2242  
 <211> 131  
 <212> PRT  
 <213> Pinus radiata

<400> 2242  
 Ile Arg Asn Pro Thr Asn Arg His Ser Ser Phe Tyr Lys Arg Lys Gly  
 1 5 10 15  
 Gly Leu Leu Lys Lys Ala Phe Glu Leu Ala Val Leu Cys Asp Ala Glu  
 20 25 30  
 Val Ala Leu Ile Ile Phe Ser Glu Thr Gly Arg Ile Tyr Glu Phe Ala  
 35 40 45  
 Ser His Asp Asp Val Thr Thr Val Leu Ala Lys Tyr Arg Ile Gln Thr  
 50 55 60  
 Lys Thr Ala Gly Asn Ala Met Pro Ser Ser Leu Gln Lys Thr Glu Phe  
 65 70 75 80  
 Asp Gln Leu Gln Val Arg Met Leu Gln Glu Lys Ile Asp Asn Leu Glu  
 85 90 95  
 Lys Thr Lys Lys His Met Val Gly Asp Asn Leu Glu Ser Leu Thr Trp  
 100 105 110  
 Lys Glu Leu Gln Gln Val Glu Lys Lys Leu Ser Lys Ala Thr Lys Ile  
 115 120 125  
 Ile Val Ala  
 130

<210> 2243  
 <211> 29  
 <212> PRT  
 <213> Pinus radiata

<400> 2243  
 Gln Pro Val Ala Pro Glu Ser Ile Val Pro Pro His Gln Pro Pro His  
 1 5 10 15  
 Asn Gln Thr Pro Asn Gln Tyr Met Gln Gly Trp Trp Val  
 20 25

<210> 2244  
 <211> 107  
 <212> PRT  
 <213> Pinus radiata

&lt;400&gt; 2244

Met Gly Arg Ser Pro Cys Cys Glu Lys Ala His Thr Asn Lys Gly Ala  
 1 5 10 15  
 Trp Thr Lys Glu Glu Asp Asp Arg Leu Ile Ala His Ile Arg Thr His  
 20 25 30  
 Gly Glu Gly Cys Trp Arg Ser Leu Pro Lys Ala Ala Gly Leu Met Arg  
 35 40 45  
 Cys Gly Lys Ser Cys Arg Leu Arg Trp Ile Asn Tyr Leu Arg Pro Asp  
 50 55 60  
 Leu Lys Arg Gly Asn Phe Ser Glu Glu Glu Asp Glu Leu Ile Ile Lys  
 65 70 75 80  
 Leu His Ser Leu Leu Gly Asn Lys Trp Ser Leu Ile Ala Gly Arg Leu  
 85 90 95  
 Pro Gly Arg Thr Asp Asn Glu Ile Lys Asn Tyr  
 100 105

&lt;210&gt; 2245

&lt;211&gt; 168

&lt;212&gt; PRT

&lt;213&gt; Pinus radiata

&lt;400&gt; 2245

Thr Ala Glu Glu Asp Arg Lys Leu Val Asn Phe Ile Thr Leu His Gly  
 1 5 10 15  
 His Gly Cys Trp Arg Glu Val Pro Lys Leu Ala Gly Leu Leu Arg Cys  
 20 25 30  
 Gly Lys Ser Cys Arg Leu Arg Trp Thr Asn Tyr Leu Arg Pro Asp Leu  
 35 40 45  
 Lys Arg Gly Leu Leu Ser Glu Glu Glu Lys Leu Ile Ile Asp Leu  
 50 55 60  
 His Ala Ala Ile Gly Asn Arg Trp Ser Arg Ile Ala Ala Gln Leu Pro  
 65 70 75 80  
 Gly Arg Thr Asp Asn Glu Ile Lys Asn Tyr Trp Asn Thr Arg Ile Lys  
 85 90 95  
 Lys Lys Leu Arg Gln Met Gly Ile Asp Pro Val Thr His Lys Pro Leu  
 100 105 110  
 Thr Gln Met Gln Met Gln Ser Thr Pro Ala Gln Thr Leu Leu Leu Gln  
 115 120 125  
 Glu Asn Asp Thr Glu Gln Gln Gln Glu Gln His Asn Glu Pro Asp  
 130 135 140  
 Pro Asp Gln Asn Gln Ser Ser Asn Gly Thr Val Glu Thr Leu Val Ser  
 145 150 155 160  
 Arg Ala Arg Glu Pro His Asp His  
 165

&lt;210&gt; 2246

&lt;211&gt; 164

&lt;212&gt; PRT

&lt;213&gt; Pinus radiata

&lt;400&gt; 2246

Ser Asp Gly Thr Thr Met Ser Thr Tyr Glu Arg Lys Ala Ser Leu  
 1 5 10 15  
 Arg Glu Phe Tyr Ala Val Ile Tyr Pro Ser Leu Leu Gln Leu Glu Gly  
 20 25 30  
 Gly Ile Thr Glu Met Glu Asp Asn Lys Gln Lys Leu Ile Cys Lys Glu  
 35 40 45  
 Arg Tyr Lys Lys Arg Val Asp Glu Glu Arg Arg His Leu Ser Glu Leu  
 50 55 60  
 Asp Leu Glu Arg Glu Lys Glu Cys Gly Ile Cys Met Glu Thr Gln Thr  
 65 70 75 80

Lys Val Val Leu Pro Asn Cys Ser His Ala Met Cys Leu Asn Cys Tyr  
 85 90 95  
 Arg Glu Trp His Ala Arg Ser Glu Ser Cys Pro Phe Cys Arg Asp Ser  
 100 105 110  
 Leu Lys Arg Val Asn Ser Thr Asp Leu Trp Ile Phe Thr Ser Asn Glu  
 115 120 125  
 Glu Val Val Asp Met Glu Thr Leu Gly Arg Glu Asn Leu Lys Arg Leu  
 130 135 140  
 Phe Asn Tyr Ile Asp Lys Leu Pro Leu Ile Val Pro Glu Ser Leu Phe  
 145 150 155 160  
 Tyr Val Tyr Asp

<210> 2247

<211> 414

<212> PRT

<213> Eucalyptus grandis

<400> 2247

Met Gly Arg His Ser Cys Cys Tyr Lys Gln Lys Leu Arg Lys Gly Leu  
 1 5 10 15  
 Trp Ser Pro Glu Glu Asp Glu Lys Leu Leu Arg His Ile Ser Gln Tyr  
 20 25 30  
 Gly His Gly Cys Trp Ser Ser Val Pro Lys Gln Ala Gly Leu Gln Arg  
 35 40 45  
 Cys Gly Lys Ser Cys Arg Leu Arg Trp Ile Asn Tyr Leu Arg Pro Asp  
 50 55 60  
 Leu Lys Arg Gly Ala Phe Ser Gln Asp Glu Glu Asp Leu Ile Ile Glu  
 65 70 75 80  
 Leu His Ala Ala Leu Gly Asn Lys Trp Ser Gln Ile Ala Ala Asn Leu  
 85 90 95  
 Pro Gly Arg Thr Asp Asn Glu Ile Lys Asn Leu Trp Asn Ser Cys Leu  
 100 105 110  
 Lys Lys Lys Leu Arg Gln Arg Gly Ile Asp Pro Val Ser His Arg Pro  
 115 120 125  
 Leu Ser Glu Val Glu Asn Ser Asp Asp Lys Asp Ala Thr Ser Gly Gln  
 130 135 140  
 Thr Gln Asp Lys Val Ser Arg Gly Ser Val Glu Leu Leu Ser Gln Leu  
 145 150 155 160  
 Asn Pro Gln Phe Ser Ser Ser Thr Thr Ala Arg Ser Ser Lys Asn Ser  
 165 170 175  
 Asn Leu Met Ala Pro Thr Leu Ser Lys Asp Thr Val Ala Asp Gly Phe  
 180 185 190  
 Val Ser Asn His Gln Glu Asn Ser Met Met Asn Ser Cys Ile Ser Asp  
 195 200 205  
 Phe Val Asp Asn Phe Ser Leu Gln Gln Leu Asn Tyr Ser Ser Ser Asp  
 210 215 220  
 Ser Arg Phe Ser Asn Leu Cys Phe Thr Gln Thr Gly Arg Ala His Gly  
 225 230 235 240  
 Asn Thr Ile Phe Ser Asp Phe Asn Ser Asn Val Ile Ser Ala Ile Ser  
 245 250 255  
 Pro Pro Ser Ser Asn Ser Leu Phe Pro Thr Ala Ser Met Gly Phe Asn  
 260 265 270  
 Phe Lys Pro Ser Asn Ala Val Pro Ser Ala Asn Ser Thr Ser Ser Ala  
 275 280 285  
 Ser Thr Gly Thr Ala Asp Phe His Asn Ser Gly Ser Tyr Phe Gly Asn  
 290 295 300  
 Ser Leu Val Ser Trp Gly Leu Leu Ala Asp Cys Gly Ser Pro Asp Lys  
 305 310 315 320  
 Glu Gly Ser Thr Ser Ile His Pro Leu Glu Val His Gln Pro Gly Asp  
 325 330 335

Phe Lys Trp Ala Ala Glu Tyr Leu Gln Asn Pro Leu Phe Met Ala Ala  
                   340                  345                  350  
 Ala Leu Gln Asn Gln Ala Gln Glu Gln Ser Asn Leu Tyr Asn Gln Ile  
                   355                  360                  365  
 Lys Pro Glu Thr Gln Phe Pro Pro Asp His Ser Thr Thr Ser Met Trp  
                   370                  375                  380  
 Asp His Leu Gln Gly His Glu Ser Leu Asp Asn Ser Leu Asn Thr Cys  
 385                  390                  395                  400  
 Gly Lys Asp Ile Gln Arg Leu Thr Ala Leu Leu Gly His Asn  
                   405                  410

<210> 2248  
 <211> 205  
 <212> PRT  
 <213> Eucalyptus grandis

<400> 2248  
 Met Arg Tyr Pro Ala Pro Ala Ser Arg Gly Lys Ser Thr Ser  
 1                  5                  10                  15  
 Thr Ala Thr Pro Cys Cys Ser Lys Val Gly Ile Lys Arg Gly Pro Trp  
                   20                  25                  30  
 Thr Pro Glu Glu Asp Glu Val Leu Ala Ser Tyr Val Arg Arg Glu Gly  
                   35                  40                  45  
 Glu Gly Arg Trp Arg Thr Leu Pro Lys Arg Ala Gly Leu Gln Arg Cys  
 50                  55                  60  
 Gly Lys Ser Cys Arg Leu Arg Trp Met Asn Tyr Leu Arg Pro Ser Val  
 65                  70                  75                  80  
 Lys Arg Gly Gln Ile Ala Pro Asp Glu Glu Asp Leu Ile Leu Arg Leu  
                   85                  90                  95  
 His Arg Leu Leu Gly Asn Arg Trp Ser Leu Ile Ala Gly Arg Ile Pro  
                   100                  105                  110  
 Gly Arg Thr Asp Asn Glu Ile Lys Asn Tyr Trp Asn Thr His Leu Ser  
                   115                  120                  125  
 Lys Lys Leu Ile Ser Gln Gly Ile Asp Pro Arg Thr His Lys Pro Leu  
                   130                  135                  140  
 Leu Asn His Asn Pro Ser Ser Ser Leu Ala Ala His Leu Gln Asp Thr  
 145                  150                  155                  160  
 Tyr Asn Ala Ser Thr Phe Thr Pro Lys Ala Thr Tyr Pro Asn Pro Thr  
                   165                  170                  175  
 Val Pro Val Glu Glu Thr Gly Asp Glu Asn Asp Leu Lys Val Gly Arg  
                   180                  185                  190  
 Gln Pro Ala Gly Ser Ala Ser Lys Arg Gly Arg Cys Gln  
                   195                  200                  205

<210> 2249  
 <211> 195  
 <212> PRT  
 <213> Eucalyptus grandis

<400> 2249  
 Met Asp Lys Lys Pro Asp Asp Asp Ser Gly Lys Ser Gln Asp Val Glu  
 1                  5                  10                  15  
 Val Arg Lys Gly Pro Trp Thr Met Glu Glu Asp Leu Ile Leu Ile Asn  
                   20                  25                  30  
 Tyr Ile Ala Asn His Gly Glu Gly Ser Trp Asn Ser Leu Ala Lys Ala  
                   35                  40                  45  
 Ala Gly Leu Lys Arg Thr Gly Lys Ser Cys Arg Leu Arg Trp Leu Asn  
                   50                  55                  60  
 Tyr Leu Arg Pro Asp Val Arg Arg Gly Asn Ile Thr Thr Glu Glu Gln  
 65                  70                  75                  80  
 Leu Leu Ile Met Glu Leu His Ala Lys Trp Gly Asn Arg Trp Ser Lys

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      85              90              95
Ile Ala Lys His Leu Pro Gly Arg Thr Asp Asn Glu Ile Lys Asn Phe
      100              105              110
Trp Arg Thr Arg Ile Gln Lys His Ile Lys Gln Ala Glu Ala Phe Ser
      115              120              125
Gly Gln Ser Ser Glu Met Ser Asp Gln Ala Ser Thr Ser His Met Ser
      130              135              140
Ser Met Pro Glu Pro Met Glu Thr Tyr Asp Ser Pro Pro Ser Phe Gln
      145              150              155              160
Gly Asn Asn Asn Met Glu Pro Leu Pro Val Asn Leu Ser Val Glu Ser
      165              170              175
Asn Glu Ala Tyr Trp Ser Met Asp Asp Leu Trp Ser Met Gln Leu Leu
      180              185              190
Asn Gly Asp
      195

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<210> 2250
<211> 208
<212> PRT
<213> Eucalyptus grandis

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      <400> 2250
Met Asp Lys Lys Pro Cys Tyr Arg Thr Gln Asp Pro Gln Val Arg Lys
  1      5      10      15
Gly Pro Trp Thr Leu Glu Glu Asp Leu Ile Leu Met Asp Tyr Ile Ala
      20      25      30
Asn His Gly Glu Gly Val Trp Asn Ser Leu Ala Lys Ala Ala Gly Leu
      35      40      45
Gln Arg Thr Gly Lys Ser Cys Arg Leu Arg Trp Leu Asn Tyr Leu Arg
      50      55      60
Pro Asp Val Arg Arg Gly Asn Ile Thr Pro Glu Glu Gln Leu Leu Ile
      65      70      75      80
Ile His Leu Gln Ser Met Trp Gly Asn Arg Trp Ser Glu Ile Ala Lys
      85      90      95
His Leu Pro Gly Arg Thr Asp Asn Glu Ile Lys Asn Tyr Trp Arg Thr
      100      105      110
Lys Ile Gln Lys His Ile Ile Lys Gln Ser Glu Thr Glu Ile Asn Asp
      115      120      125
Leu Thr Ile Pro Pro Ser Ser Ala Asn Ala Cys Thr Asp His Arg Gly
      130      135      140
Val Ser Ala Ala Asn Thr Ile Glu Ile Ala Cys Ser Pro Pro Ser Asp
      145      150      155      160
Gln Gly Gly Ser Gly Glu Thr Met Leu Ser Ala Leu Pro Pro Ala Gln
      165      170      175
Glu Pro Asn Asp Ser Ala Cys Trp Ser Val Glu Asp Leu Trp Pro Ile
      180      185      190
Gln Ser Leu Ile Ser Gly Met Gly Asp Asp Ala Gln Tyr Tyr Ser Val
      195      200      205

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<210> 2251
<211> 147
<212> PRT
<213> Eucalyptus grandis

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      <400> 2251
Met Asn Ser Thr Thr Thr Gln Phe Val Ser Ser Arg Arg Met Gly Met
  1      5      10      15
Tyr Asp Pro Ile His Gln Ile Gly Met Trp Asp Glu Asn Phe Lys Gln
      20      25      30
Asn Gly Asn Pro Asn Ala Pro Pro Ala Leu Ile Ile Pro Met His Ala
      35      40      45

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Asn Leu Asp Asn Gln Ser Glu Asp Thr Ser His Gly Ser Gln Asp Thr  
 50 55 60  
 Ala Gly Lys Tyr Glu Gln Glu Thr Ser Lys Pro Tyr Asp Lys Val Gln  
 65 70 75 80  
 Arg Arg Leu Ala Gln Asn Arg Glu Ala Ala Arg Lys Ser Arg Leu Arg  
 85 90 95  
 Lys Lys Ala Tyr Val Gln Gln Leu Glu Ala Ser Arg Leu Lys Leu Met  
 100 105 110  
 Gln Leu Glu Gln Glu Val Asp Arg Ala Arg Gln Gln Gly Val Tyr Met  
 115 120 125  
 Ala Ser Gly Val Asp Ser Ala Tyr Pro Gly Tyr Gly Gly Cys Leu Asn  
 130 135 140  
 Ser Gly Ile  
 145

<210> 2252  
 <211> 43  
 <212> PRT  
 <213> Eucalyptus grandis

<400> 2252  
 Met Met Ala Val Thr Ser Ala Cys Lys Asp Lys Met Gly Ile Asp Asn  
 1 5 10 15  
 Gly Lys Tyr Val Arg Tyr Thr Pro Glu Gln Val Glu Ala Leu Glu Arg  
 20 25 30  
 Leu Tyr His Glu Cys Pro Lys Pro Ser Ser Leu  
 35 40

<210> 2253  
 <211> 54  
 <212> PRT  
 <213> Pinus radiata

<400> 2253  
 Met Gly Arg Ser Pro Cys Cys Glu Lys Ala His Thr Asn Lys Gly Ala  
 1 5 10 15  
 Trp Thr Lys Gln Glu Asp Asp Arg Leu Ile Ala His Ile Arg Ala His  
 20 25 30  
 Gly Glu Gly Gly Trp Arg Ser Leu Pro Lys Ala Ala Gly Cys Leu Pro  
 35 40 45  
 Ala Leu Cys Phe Leu Asn  
 50

<210> 2254  
 <211> 66  
 <212> PRT  
 <213> Pinus radiata

<400> 2254  
 Met Gly Arg Ala Pro Cys Cys Glu Lys Val Gly Leu Lys Lys Gly Pro  
 1 5 10 15  
 Trp Thr Pro Glu Glu Asp Gln Lys Leu Val Thr Tyr Ile Gln Glu His  
 20 25 30  
 Gly His Gly Ser Trp Arg Ala Leu Pro Gln Lys Ala Gly Asp Tyr Glu  
 35 40 45  
 Phe Ile Phe Ser Ser Arg Thr Cys Lys Lys Phe Ser Val Phe Leu Phe  
 50 55 60  
 Phe Gly  
 65

<210> 2255

<211> 67  
 <212> PRT  
 <213> Pinus radiata

<400> 2255  
 Met Gly Arg Ser Pro Cys Cys Ala Lys Glu Gly Leu Asn Arg Gly Ala  
 1 5 10 15  
 Trp Thr Lys Thr Glu Asp Ile Ile Leu Ser Glu Tyr Ile Arg Ile His  
 20 25 30  
 Gly Asp Gly Gly Trp Arg Ser Leu Pro Lys Lys Ala Gly Leu Lys Arg  
 35 40 45  
 Cys Gly Lys Ser Cys Arg Leu Arg Trp Leu Asn Tyr Leu Arg Pro Asp  
 50 55 60  
 Ile Lys Arg  
 65

<210> 2256  
 <211> 226  
 <212> PRT  
 <213> Pinus radiata

<400> 2256  
 Met Gly Arg Ala Pro Cys Cys Ser Asn Asp Asp Arg Asn Lys Gly Ala  
 1 5 10 15  
 Trp Thr Lys Glu Glu Asp Asp Arg Leu Ile Gln Tyr Ile Lys Val His  
 20 25 30  
 Gly Glu Gly Cys Trp Arg Ser Leu Pro Lys Ala Ala Gly Leu Leu Arg  
 35 40 45  
 Cys Gly Lys Ser Cys Arg Leu Arg Trp Ile Asn Tyr Leu Arg Pro Asp  
 50 55 60  
 Leu Lys Arg Gly Phe Phe Ser Glu Asp Glu Asp Asp Leu Ile Leu Lys  
 65 70 75 80  
 Leu His Ala Leu Leu Gly Asn Asn Arg Trp Ser Leu Ile Ala Gly Arg  
 85 90 95  
 Leu Pro Gly Arg Thr Asp Asn Glu Ile Lys Asn Tyr Trp Asn Ser His  
 100 105 110  
 Leu Lys Arg Lys Leu Ile Ser Met Gly Ile Asp Pro Leu Thr His Arg  
 115 120 125  
 Pro Phe Gln Lys Thr Ser His His His Pro Ser Pro Pro Gln Asn Val  
 130 135 140  
 Arg Glu Ala Glu Thr Thr Pro Ser Ile Gly Ile Val Gln Asp Phe Phe  
 145 150 155 160  
 Arg Cys Pro Ser Glu Leu Ser Thr Lys Ser Glu Gln Ile Ser Asp Ala  
 165 170 175  
 Ala Ser Gly Leu Ala Gln Asp Glu Gln Pro His Pro Asn Leu Asn Leu  
 180 185 190  
 Asn Leu Glu Leu Ser Ile Ala Arg Ser Ser Val His Arg Val Ala Glu  
 195 200 205  
 Lys Glu Asp Val Val Asn Ser Gln Gln Gly Glu Ser Asn Leu Ser Glu  
 210 215 220  
 Gly Lys  
 225

<210> 2257  
 <211> 101  
 <212> PRT  
 <213> Pinus radiata

<400> 2257  
 Met Gly Arg Ala Pro Cys Cys Ser Asn Gly Asp Arg Asn Lys Gly Ala  
 1 5 10 15

Trp Thr Lys Glu Glu Asp Asp Arg Leu Ile Gln Tyr Ile Lys Val His  
 20 25 30  
 Gly Glu Gly Cys Trp Arg Ser Leu Pro Asn Ala Ala Gly Leu Leu Arg  
 35 40 45  
 Cys Gly Lys Ser Cys Arg Leu Arg Trp Ile Asn Tyr Leu Cys Pro Asp  
 50 55 60  
 Leu Lys Arg Gly Phe Phe Ser Glu Asp Glu Asp Asp Leu Ile Leu Lys  
 65 70 75 80  
 Leu His Ala Leu Leu Gly Asn Lys Trp Ser Leu Ile Ala Gly Arg Leu  
 85 90 95  
 Pro Gly Arg Thr Asp  
 100

&lt;210&gt; 2258

&lt;211&gt; 412

&lt;212&gt; PRT

&lt;213&gt; Pinus radiata

&lt;400&gt; 2258

Met Gly Arg Thr Pro Cys Cys Glu Lys Asn Ile Gly Leu Lys Lys Gly  
 1 5 10 15  
 Pro Trp Thr Pro Glu Glu Asp Gln Lys Leu Ile Asp Tyr Ile Gln Ser  
 20 25 30  
 His Gly His Gly Ser Trp Arg Ala Leu Pro Lys Arg Ala Gly Leu Leu  
 35 40 45  
 Arg Cys Gly Lys Ser Cys Arg Leu Arg Trp Thr Asn Tyr Leu Arg Pro  
 50 55 60  
 Asp Ile Lys Arg Gly Gln Phe Ser Phe Glu Glu Glu Gln Thr Ile Ile  
 65 70 75 80  
 Glu Leu His Ala Val Leu Gly Asn Lys Trp Ser Thr Ile Ala Gly His  
 85 90 95  
 Leu Pro Gly Arg Thr Asp Asn Glu Ile Lys Asn Tyr Trp Asn Thr His  
 100 105 110  
 Leu Lys Lys Arg Leu Leu Gln Met Gly Ile Asp Pro Val Thr His Arg  
 115 120 125  
 Pro Arg Thr Asp Leu Leu Ala Phe Ser Asn Ile Gln Ser Ser Ile Phe  
 130 135 140  
 Asn Thr Pro Gly Phe Gly His Met Ala Gln Trp Glu Ser Ala Arg Leu  
 145 150 155 160  
 Glu Ala Glu Ala Arg Leu Thr Gly Glu Tyr Leu Arg Gln Ala Leu Phe  
 165 170 175  
 Met Ala Gly Asn Gly Ser Ala Thr Ala Asp Leu Leu Met Arg Pro Cys  
 180 185 190  
 Lys Ser Glu Phe Gly Asn Asp Gln Phe Asn Leu Thr Lys Asn Met Gly  
 195 200 205  
 Asn Pro Pro Trp Ile Gln Gln Pro Gly Met Ala Leu Asp Tyr Lys Gly  
 210 215 220  
 Ala Val Pro Gln Ser Leu Glu Gln Phe Leu Gln Thr Asn Val Cys Ser  
 225 230 235 240  
 Ala Ser Asp Ile Asn Gly Gly Gly Cys Leu Ser His Glu Gly Gly Phe  
 245 250 255  
 Asn Ile Thr Lys Phe Ala Ser Pro Cys Ser Thr Leu Asp Gly Ile Gln  
 260 265 270  
 Ile Lys Thr Glu Pro Gln Ser Leu Cys Gly Pro Gln Val Val Lys Asn  
 275 280 285  
 Asp Ser Gln Phe Leu His Ser Glu Gly Asp Leu Arg Lys Gln Ala Met  
 290 295 300  
 Leu Asp Met Asn Val Gly Cys Asn Val Leu Ile Asn Met Asn Ala Glu  
 305 310 315 320  
 Ser Lys Val Ser Phe Gly His Asn Gly Ile Ile Thr Asp Gln Glu Tyr  
 325 330 335



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Asn Asn Leu Gly Gln Ile Asp Asn Asn Asn His Leu Ser His Ala Ala
      340                      345          350
Thr Thr Leu Trp Pro Val Glu Gly Gln Leu Gln Ala Ile Ala Ser Ala
      355                      360          365
Ser Met Pro Gly Leu Ile Ser Ser Thr Ser Cys Thr Ser Asn Asn Ile
      370                      375          380
Tyr Ser Gln Pro Gly Leu Ile Pro Leu Leu Asn Ser Thr Thr Ser Ser
      385                      390          395          400
Met Gly Asp Thr Asn Ser Tyr Arg Glu Ala Gln Pro
      405                      410

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&lt;210&gt; 2259

&lt;211&gt; 391

&lt;212&gt; PRT

&lt;213&gt; Pinus radiata

&lt;400&gt; 2259

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Met Gly Arg Thr Pro Cys Cys Leu Lys Val Gly Leu Asn Arg Gly Pro
  1      5      10      15
Trp Thr Pro Glu Glu Asp Leu Cys Leu Ser Asn Tyr Ile Glu Ala His
      20      25      30
Gly Glu Gly Gly Trp Arg Thr Leu Pro Lys Lys Ala Gly Leu Leu Arg
      35      40      45
Cys Gly Lys Ser Cys Arg Leu Arg Trp Met Asn Tyr Leu Arg Pro Asp
      50      55      60
Val Lys His Gly His Ile Leu Pro Glu Glu Glu Asp Leu Ile Leu Arg
      65      70      75      80
Leu His Arg Leu Leu Gly Asn Arg Trp Ser Leu Ile Ala Gly Arg Met
      85      90      95
Pro Gly Arg Thr Asp Asn Glu Val Lys Asn Tyr Trp Asn Thr His Leu
      100      105      110
Ser Lys Lys Leu Ile Ser Gln Gly Ile Asp Pro Arg Thr His Lys Pro
      115      120      125
Leu Ser Glu Ser Glu Asp Ile Cys Ser Ser Pro Gly Asn Ser Glu Val
      130      135      140
Ser Arg Lys Ser Gln Arg Glu Asn Asn Ala Glu Ile Pro Arg Lys Val
      145      150      155      160
Ala Asp Gly Ala Val Asp Ile Gln Asp Lys Glu Glu Asp Ile Thr Glu
      165      170      175
Asp Gln Thr Ser Ala Gln Leu Pro Glu Asn Gln Leu Leu Glu Thr Ser
      180      185      190
Asn Ser Gln Cys Pro Ser Val Ala Thr Asp Phe Val Pro Gln Ala Pro
      195      200      205
Ser Ile Pro Ser Thr Ala Tyr Ser Phe Gln Gln Ser Thr Thr Ser Ser
      210      215      220
Val Pro Gly Gly Val Ser Asp Ser Val Asp Val Asn His Asn Lys Gly
      225      230      235      240
Ser Lys Gln Val Pro Phe Pro Leu Ser Asn Thr Ala Cys Phe Asn Ser
      245      250      255
Ser Ala Gln Gly Val Ala Gly Asp Tyr Leu Asp Gln Tyr Leu Met Lys
      260      265      270
Asn Leu Val Thr Asn Ser Asn Asp Leu Ile Thr Ser Thr Val Arg Leu
      275      280      285
Ser Ser Ala Leu Gln Thr Ala Pro Phe Val Gly Gln Phe Asp Ser Asn
      290      295      300
His Val Phe Met Ser Gly Asn Ala Ser Leu Asn Glu Lys His Gln Met
      305      310      315      320
Pro Gln Asn Ser Gln Ala Leu Glu Met Asp Pro His His Ser Phe Ile
      325      330      335
Ala His Pro Ser Glu Glu Gly Thr Tyr Asp Lys Leu Asn His Thr Arg
      340      345      350

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Cys Ala Ala Ser Asp Gln Val Thr Ser Phe Asn Tyr Pro Tyr Leu Ile  
           355                                  360                  365  
 Ser His Thr Val Thr Gly Ser Ala Leu Gly Asp Phe Asn Pro Asp Ile  
           370                                  375                  380  
 Phe Pro Pro Phe Val Glu Ser  
           385                                  390

<210> 2260  
 <211> 144  
 <212> PRT  
 <213> Pinus radiata

<400> 2260  
 Met Gly Arg Ser Pro Cys Cys Glu Lys Ala His Thr Asn Lys Gly Ala  
   1                                  5                  10                  15  
 Trp Thr Lys Gln Glu Asp Asp Arg Leu Ile Ala His Ile Arg Ala His  
           20                                  25                  30  
 Gly Glu Gly Gly Trp Arg Ser Leu Pro Lys Ala Ala Gly Leu Leu Arg  
           35                                  40                  45  
 Cys Gly Lys Ser Cys Arg Leu Arg Trp Ile Asn Tyr Leu Arg Pro Asp  
           50                                  55                  60  
 Leu Lys Arg Gly Ser Phe Thr Glu Glu Glu Asp Glu Leu Ile Ile Lys  
   65                                  70                  75                  80  
 Leu His Ser Phe Val Gly Asn Lys Trp Ser Leu Ile Ala Gly Arg Leu  
           85                                  90                  95  
 Pro Gly Arg Thr Asp Asn Glu Ile Lys Asn Tyr Trp Asn Thr His Ile  
           100                                  105                  110  
 Lys Arg Lys Leu Leu Ser Lys Gly Leu Asp Pro Gln Thr His Arg Pro  
           115                                  120                  125  
 Leu Gly Gln Pro Asn Asn Thr Pro Val Thr Arg Pro Val Leu Glu His  
           130                                  135                  140

<210> 2261  
 <211> 255  
 <212> PRT  
 <213> Pinus radiata

<400> 2261  
 Met Gly Arg Ser Pro Cys Cys Glu Lys Ala His Thr Asn Lys Gly Ala  
   1                                  5                  10                  15  
 Trp Thr Lys Glu Glu Asp Asp Arg Leu Ile Ala His Ile Arg Thr His  
           20                                  25                  30  
 Gly Glu Gly Cys Trp Arg Ser Leu Pro Lys Ala Ala Gly Leu Met Arg  
           35                                  40                  45  
 Cys Gly Lys Ser Cys Arg Leu Arg Trp Ile Asn Tyr Leu Arg Pro Asp  
           50                                  55                  60  
 Leu Lys Arg Gly Asn Phe Ser Glu Glu Glu Asp Glu Leu Val Ile Lys  
   65                                  70                  75                  80  
 Leu His Ser Leu Leu Gly Asn Lys Trp Ser Leu Ile Ala Gly Arg Leu  
           85                                  90                  95  
 Pro Gly Arg Thr Asp Asn Glu Ile Lys Asn Tyr Trp Asn Thr His Ile  
           100                                  105                  110  
 Lys Arg Lys Leu Leu Asn Arg Gly Leu Asp Pro Gln Ser His Arg Pro  
           115                                  120                  125  
 Leu Gly Gln Pro His Asn Ser Asn Thr Thr Cys Pro Ser Leu Pro Ala  
           130                                  135                  140  
 Leu Glu His Glu Ile Leu Val Phe Gln Arg Pro Arg Thr Pro Glu Ile  
   145                                  150                  155                  160  
 Ala Asp Phe Phe Gln Tyr Glu Arg Ser Glu Ser Ser Pro Met Glu Pro  
           165                                  170                  175  
 Ala Thr Ser Lys Asp Ala Glu Glu His Pro Asp Leu Asn Leu Asp Leu

			180					185				190			
Cys	Ile	Ser	Leu	Pro	Val	His	Ser	Pro	Pro	Ala	Thr	Ser	Arg	Ala	Ser
		195						200				205			
Ser	Val	Asp	Gly	Thr	Val	Asp	Ser	Lys	Pro	Asn	Ser	Val	Ser	Cys	His
	210					215					220				
Met	Gly	Leu	Gln	Val	Asn	Tyr	Gly	Val	Gln	Cys	Glu	Asn	Arg	Tyr	Cys
225					230					235					240
Glu	Glu	Ser	Ala	Ser	Gly	Val	Ser	Ser	Phe	Tyr	Thr	Leu	Val	Leu	
				245					250					255	

<210> 2262  
 <211> 162  
 <212> PRT  
 <213> Pinus radiata

<400> 2262

Met	Gly	Thr	Gly	Glu	Met	Gly	Thr	Pro	Ala	Lys	Thr	Thr	Lys	Ala	Ser
1				5					10					15	
Thr	Pro	Gln	Glu	Gln	Pro	Pro	Thr	Ser	Thr	Ala	Met	Leu	Tyr	Pro	Asp
		20						25					30		
Trp	Ala	Ala	Ala	Phe	Gln	Ala	Tyr	Tyr	Asn	Ser	Gly	Thr	Thr	Pro	Pro
	35						40					45			
Pro	Pro	Pro	Ala	Tyr	Phe	His	Ser	Ser	Val	Ala	Ser	Ser	Pro	Gln	Pro
	50					55					60				
His	Pro	Tyr	Met	Trp	Gly	Gly	Gln	Pro	Leu	Met	Pro	Pro	Tyr	Gly	Thr
65				70					75					80	
Leu	Pro	Pro	Pro	Tyr	Ala	Ala	Met	Tyr	His	His	Gly	Ser	Met	Tyr	Ala
				85					90					95	
His	Pro	Ser	Met	Pro	Pro	Gly	Ala	His	Pro	Phe	Ala	Pro	Tyr	Val	Met
			100					105					110		
Thr	Ser	Ser	Leu	Ser	Thr	Thr	Glu	Gly	Ala	Pro	Val	Gly	Thr	Thr	Ser
		115					120					125			
Gly	Ala	Asp	Ala	Glu	Gly	Lys	Pro	Ser	Glu	Pro	Lys	Asp	Gln	Thr	Leu
	130					135					140				
Leu	Lys	Arg	Ser	Lys	Gly	Ser	Leu	Gly	Ser	Leu	Asn	Met	Leu	Thr	Gly
145					150					155					160
Lys	Ile														

<210> 2263  
 <211> 193  
 <212> PRT  
 <213> Pinus radiata

<400> 2263

Met	Gly	Cys	Asn	Gln	Ser	Lys	Val	Glu	Ser	Glu	Glu	Glu	Val	Val	Lys
1				5					10					15	
Ser	Lys	Glu	Arg	Lys	Gln	Phe	Met	Lys	Glu	Ser	Val	Ala	Ala	Arg	Asn
		20						25					30		
Ala	Phe	Ala	Ala	Ala	His	Ser	Ala	Ser	Ile	Thr	Ser	Leu	Lys	Asn	Ile
	35						40					45			
Gly	Ala	Ala	Leu	Asn	Asp	Tyr	Gly	Gln	Gly	Glu	Ser	Lys	Glu	Ser	Leu
	50					55					60				
Ser	Gln	Gly	His	Leu	Pro	Val	Pro	His	Ile	Tyr	Gly	Asp	Pro	Leu	Pro
65				70					75					80	
Pro	Ala	Pro	Pro	Leu	Pro	Pro	Leu	Leu	Pro	Pro	Pro	Arg	Pro	Asp	Glu
				85					90					95	
His	Pro	Ala	Arg	Pro	Leu	Glu	Arg	Ser	Ala	Ser	Ala	Pro	Ala	Ile	Ala
			100					105					110		
Leu	Gln	Gln	Gln	Ala	Glu	Glu	Asp	Arg	Asn	Pro	Glu	Ala	Asn	Ala	Gly
		115					120					125			

Ala Ser Ile Pro Glu Gly Glu Glu Asp Glu Val Glu Glu Glu Glu Asp  
 130 135 140  
 Glu His Leu Val Glu Val Ser His Ser Val Thr Ser Phe Asn Pro Pro  
 145 150 155 160  
 Pro Arg Pro Pro Pro Ser Ser Ser Glu Pro Pro Pro Pro Leu Pro  
 165 170 175  
 Pro Leu Thr Asn Gln Trp Asp Phe Phe Asp Asp Asn Ser Tyr Phe Glu  
 180 185 190  
 Arg

<210> 2264  
 <211> 128  
 <212> PRT  
 <213> Pinus radiata

<400> 2264  
 Met Gly Arg Gly Lys Ile Glu Ile Lys Met Ile Glu Asn Ala Thr Asn  
 1 5 10 15  
 Arg Gln Val Thr Phe Ser Lys Arg Arg Gly Gly Leu Lys Lys Lys Ala  
 20 25 30  
 Gln Glu Leu Ser Val Leu Cys Asn Ala Glu Val Ala Leu Ile Ile Phe  
 35 40 45  
 Ser Ser Thr Gly Lys Leu His Glu Trp Ser Ser Ser Ser Ser Phe Phe  
 50 55 60  
 Met Leu Gln Lys Ser Met Lys Lys Ile Leu Glu Arg Tyr Gln Lys Ser  
 65 70 75 80  
 Glu Gln Gly Leu Gly Leu Met Asp Tyr Gln His Gln Gln Leu Leu Cys  
 85 90 95  
 Glu Met Arg Arg Ile Thr Lys Glu Asn Glu Ser Leu Gln Glu Arg Leu  
 100 105 110  
 Arg His Met Asn Gly Glu Glu Val Asn Ser Leu Lys Leu Pro Glu Leu  
 115 120 125

<210> 2265  
 <211> 181  
 <212> PRT  
 <213> Pinus radiata

<400> 2265  
 Met Gly Arg Gly Arg Val Glu Leu Lys Arg Ile Glu Asn Lys Ile Asn  
 1 5 10 15  
 Arg Gln Val Thr Phe Ser Lys Arg Arg Asn Gly Leu Leu Lys Lys Ala  
 20 25 30  
 Tyr Glu Leu Ser Val Leu Cys Asp Ala Glu Val Ala Leu Ile Ile Phe  
 35 40 45  
 Ser Ser Arg Gly Lys Leu Tyr Glu Phe Gly Ser Ala Gly Met Leu Lys  
 50 55 60  
 Thr Leu Glu Arg Tyr Gln Lys Cys Ser Tyr Val Leu Gln Asp Ala Thr  
 65 70 75 80  
 Val Ser Asp Arg Glu Ala Gln Asn Trp His Gln Glu Val Gly Lys Leu  
 85 90 95  
 Lys Ala Arg Val Glu Leu Leu Gln Arg Ser Gln Arg His Leu Leu Gly  
 100 105 110  
 Glu Asp Leu Gly Pro Leu Ser Ile Lys Glu Leu Gln Gln Leu Glu Arg  
 115 120 125  
 Gln Leu Glu Val Ala Leu Thr His Val Arg Ser Arg Lys Thr Gln Val  
 130 135 140  
 Met Leu Glu Met Met Asp Glu Leu Arg Arg Lys Glu Arg Ile Leu Gln  
 145 150 155 160  
 Glu Val Asn Lys Ser Leu Arg Lys Lys Leu Gln Glu Ala Glu Gly Gln

165  
 Ala Phe Asn Ala Met  
 180

170  
 175

<210> 2266  
 <211> 107  
 <212> PRT  
 <213> Pinus radiata

<400> 2266  
 Met Asp Leu Met Glu Ser Phe Glu Ala Lys Gly Lys Gly Glu Lys Arg  
 1 5 10 15  
 Arg Thr Val Arg Gly Lys Thr Gln Leu Lys Arg Ile Glu Asn Gly Thr  
 20 25 30  
 Ser Arg Gln Val Thr Phe Cys Lys Arg Arg Asn Gly Leu Leu Lys Lys  
 35 40 45  
 Ala Tyr Glu Leu Ser Val Leu Cys Asp Ala Glu Val Ala Leu Ile Val  
 50 55 60  
 Phe Ser Pro Arg Gly Lys Arg Tyr Glu Phe Ala Asn Pro Ser Met Gln  
 65 70 75 80  
 Lys Met Leu Ala Arg Tyr Glu Asn Phe Ser Glu Gly Ser Lys Ala Thr  
 85 90 95  
 Ser Thr Ala Lys Glu Gln Asp Val Gln Gly Leu  
 100 105

<210> 2267  
 <211> 134  
 <212> PRT  
 <213> Pinus radiata

<400> 2267  
 Ala Arg Gly Lys Thr Gln Met Arg Lys Ile Glu Ser Ala Thr Ser Arg  
 1 5 10 15  
 Gln Val Thr Phe Ser Lys Arg Arg Asn Gly Leu Met Lys Lys Ala Tyr  
 20 25 30  
 Glu Leu Ser Val Leu Cys Asp Ala Gln Leu Gly Leu Ile Val Phe Ser  
 35 40 45  
 Pro Arg Gly Lys Val Tyr Glu Phe Ser Ser Thr Cys Met Gln Lys Met  
 50 55 60  
 Leu Ala Arg Tyr Glu Lys Cys Ser Glu Gly Ser Asp Thr Ser Thr Ser  
 65 70 75 80  
 Lys Glu Gln Asp Val Gln Cys Leu Lys Arg Glu Ser Ala Asn Met Glu  
 85 90 95  
 Glu Arg Ile Glu Ile Leu Glu Ser Met Gln Arg Lys Met Leu Gly Glu  
 100 105 110  
 Glu Leu Ala Ser Cys Ala Leu Lys Asp Leu Asn Gln Leu Glu Ser Gln  
 115 120 125  
 Val Glu Arg Gly Leu Arg  
 130

<210> 2268  
 <211> 138  
 <212> PRT  
 <213> Pinus radiata

<400> 2268  
 Met Gly Arg Gly Arg Val Gln Leu Arg Arg Ile Glu Asn Lys Ile Asn  
 1 5 10 15  
 Arg Gln Val Thr Phe Ser Lys Arg Arg Asn Gly Leu Leu Lys Lys Ala  
 20 25 30  
 Tyr Glu Leu Ser Val Leu Cys Asp Ala Glu Val Ala Leu Ile Ile Phe

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      35              40              45
Ser Thr Arg Gly Lys Leu Tyr Glu Phe Ala Ser Ser Ser Met Asn Lys
      50              55              60
Thr Leu Glu Arg Tyr Glu Lys Cys Ser Tyr Ala Met Gln Asp Thr Thr
      65              70              75              80
Gly Val Ser Asp Arg Glu Ala Gln Asn Trp His Gln Glu Val Thr Lys
      85              90              95
Leu Lys Gly Lys Val Glu Leu Leu Gln Arg Ser Gln Arg His Leu Leu
      100              105              110
Gly Glu Asp Leu Gly Pro Leu Asn Val Lys Glu Leu Gln Gln Leu Glu
      115              120              125
Arg Gln Leu Glu Val Ala Leu Thr His Leu
      130              135

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<210> 2269  
 <211> 141  
 <212> PRT  
 <213> Pinus radiata

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      <400> 2269
Met Gly Lys Lys Arg Val Glu Leu Lys Arg Ile Gln Asn Pro Ser Ser
      1              5              10              15
Arg His Ala Thr Phe Ser Lys Arg Lys Asn Gly Leu Leu Lys Lys Ala
      20              25              30
Phe Glu Leu Ser Val Leu Cys Asp Ala Glu Val Ala Leu Ile Ile Phe
      35              40              45
Ser Glu Thr Gly Lys Ile Tyr Glu Phe Ala Ser Asn Asn Asp Met Ala
      50              55              60
Ala Ile Leu Gly Lys Tyr Arg Val His Glu Glu Gly Thr Glu Thr Ser
      65              70              75              80
Ser Pro Thr Ser Leu Gln Asn Val Lys Tyr His Glu Ser Gly Leu Glu
      85              90              95
Lys Leu Gln Glu Lys Leu Thr Ala Leu Gln Lys Lys Glu Lys Asn Leu
      100              105              110
Ile Gly Glu Asp Leu Glu Val Leu Thr Met Lys Glu Leu Gln Arg Leu
      115              120              125
Glu Lys Gln Leu Gln Ile Gly Ile Lys Arg Leu Val Ile
      130              135              140

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<210> 2270  
 <211> 135  
 <212> PRT  
 <213> Pinus radiata

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      <400> 2270
Met Gly Lys Lys Lys Val Glu Val Lys Leu Ile Gln Asn Pro Thr Ser
      1              5              10              15
Arg Gln Gly Cys Phe Tyr Asn Arg Lys Cys Gly Leu Leu Lys Lys Ala
      20              25              30
Phe Glu Leu Ser Val Leu Cys Asp Ala Glu Val Ala Leu Ile Ile Phe
      35              40              45
Ser Gln Thr Gly Lys Ile Tyr Glu Phe Ala Ser His Asp Asp Val Asn
      50              55              60
Ala Ile Leu Ala Lys Tyr Arg Ile Gln Thr Gly Thr Thr Thr Asn Ala
      65              70              75              80
Met Pro Ser Ser Leu Gln Asn Thr Glu Pro Glu Thr Leu His Glu Glu
      85              90              95
Thr Asn Met Leu Gly Lys Arg Lys Lys Val Glu Lys Leu His Glu Lys
      100              105              110
Ile Asn Met Leu Glu Lys Arg Gly Lys Asn Met Val Gly Glu Asn Leu
      115              120              125

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Glu Ser Leu Thr Val Asn Glu  
130 135

<210> 2271  
<211> 118  
<212> PRT  
<213> Pinus radiata

<400> 2271  
Met Ala Arg Gly Lys Thr Gln Met Lys Lys Ile Glu Asn Val Thr Ser  
1 5 10 15  
Arg Gln Val Thr Phe Ser Lys Arg Arg Asn Gly Leu Leu Lys Lys Ala  
20 25 30  
Phe Glu Leu Ser Val Leu Cys Asp Ala Glu Val Gly Leu Ile Val Phe  
35 40 45  
Ser Pro Ser Gly Lys Leu Tyr Glu Phe Ser Arg Pro Cys Met Gly Lys  
50 55 60  
Leu Leu Glu Lys Tyr Glu Lys Asn Ser Arg Glu Ser Gly Ile Asn Asn  
65 70 75 80  
Ala Ala Lys Glu Lys Asp Thr Gln His Ser Lys Arg Glu Ile Ala Asn  
85 90 95  
Met Glu Glu Lys Ile Arg Ile Leu Glu Ser Thr Glu Arg Lys Met Leu  
100 105 110  
Gly Gln Asn Leu Ala Ser  
115

<210> 2272  
<211> 147  
<212> PRT  
<213> Pinus radiata

<400> 2272  
Met Asp Ser Phe Glu Ala Lys Gly Lys Gly Glu Lys Arg Arg Thr Val  
1 5 10 15  
Arg Gly Lys Thr Gln Met Lys Arg Ile Glu Asn Ala Thr Ser Arg Gln  
20 25 30  
Val Thr Phe Ser Lys Arg Arg Asn Gly Leu Leu Lys Lys Ala Tyr Glu  
35 40 45  
Leu Ser Val Leu Cys Asp Ala Glu Val Ala Leu Met Val Phe Ser Pro  
50 55 60  
Arg Gly Lys Leu Tyr Glu Phe Ala Asn Pro Ser Met Gln Lys Met Leu  
65 70 75 80  
Glu Arg Tyr Glu Lys Cys Ser Glu Gly Ser Lys Thr Thr Ser Ile Ala  
85 90 95  
Lys Glu Glu Asp Pro Lys Ala Leu Lys Arg Glu Ile Ala Asn Met Glu  
100 105 110  
Glu Arg Ile Glu Ile Leu Glu Arg Thr Gln Arg Lys Met Leu Gly Glu  
115 120 125  
Glu Leu Ala Ser Cys Ala Leu Lys Asp Leu Asn Gln Leu Glu Ser Gln  
130 135 140  
Val Glu Arg  
145

<210> 2273  
<211> 113  
<212> PRT  
<213> Pinus radiata

<400> 2273  
Met Gly Arg Gly Lys Ile Glu Ile Lys Lys Ile Glu Asn Ser Val His  
1 5 10 15

Arg Gln Val Thr Phe Cys Lys Arg Arg Gly Gly Leu Met Lys Lys Ala  
 20 25 30  
 Tyr Glu Leu Ser Val Leu Cys Asp Ala Asp Val Ala Leu Ile Val Phe  
 35 40 45  
 Ser Ser Arg Gly Lys Leu Tyr Glu Leu Gly Thr Ser Asn Asn Asn Asn  
 50 55 60  
 Asn Ser Met Arg Ser Ile Leu Glu Arg Tyr Gln Lys Cys Ser Gln Thr  
 65 70 75 80  
 Ala Lys His Met Asn Phe Ser Asn Asn Thr Ser Asp Glu Lys Met Lys  
 85 90 95  
 Gln Glu Ile Asn Leu Leu Lys Gln Gln Ile Gly Ser Ala Lys Leu Thr  
 100 105 110  
 Asn

<210> 2274  
 <211> 97  
 <212> PRT  
 <213> Pinus radiata

<400> 2274  
 Ser Trp Lys Ala Asn Pro Cys Thr Val Pro Ser Ser Arg Ile Gly Gly  
 1 5 10 15  
 Phe Gly Gly Gly Gln Val Ile Leu Pro Leu Ala His Thr Val Glu His  
 20 25 30  
 Glu Glu Phe Leu Glu Val Ile Lys Leu Glu Asn His Gly Leu Thr Gln  
 35 40 45  
 Glu Glu Ala Leu Leu Ser Arg Asp Met Phe Leu Leu Gln Leu Cys Ser  
 50 55 60  
 Gly Leu Asp Glu Asn Ala Val Gly Ala Cys Ala Glu Leu Val Phe Ala  
 65 70 75 80  
 Pro Ile Asp Ala Ser Leu Ala Asp Ser Ser Pro Leu Leu Pro Ser Gly  
 85 90 95  
 Phe

<210> 2275  
 <211> 157  
 <212> PRT  
 <213> Pinus radiata

<400> 2275  
 Ser Val Asp Val Leu Thr Ala Phe Ser Thr Gly Asn Gly Gly Thr Ile  
 1 5 10 15  
 Glu Leu Leu Tyr Met Gln Met Tyr Ala Pro Thr Thr Leu Ala Ser Ala  
 20 25 30  
 Arg Asp Phe Trp Thr Leu Arg Tyr Thr Ser Val Leu Glu Asp Gly Ser  
 35 40 45  
 Leu Val Val Cys Glu Arg Ser Leu Ser Gly Thr Gln Gly Gly Pro Ser  
 50 55 60  
 Met Pro Ala Val Gln Gln Phe Val Arg Ala Glu Met Gln Pro Ser Gly  
 65 70 75 80  
 Tyr Leu Ile Arg Pro Cys Glu Gly Gly Gly Ser Leu Ile His Ile Val  
 85 90 95  
 Asp His Met Asp Leu Glu Pro Trp Ser Val Pro Glu Val Leu Arg Pro  
 100 105 110  
 Leu Tyr Glu Ser Ser Thr Val Leu Ala Gln Lys Val Thr Met Ser Ala  
 115 120 125  
 Leu Arg His Leu Arg Gln Ile Ala Gln Glu Ala Ser Ser Asp Val Val  
 130 135 140  
 Leu Gly Trp Gly Arg Gln Pro Ala Ala Leu Arg Thr Phe



145

150

155

<210> 2276  
 <211> 327  
 <212> PRT  
 <213> Eucalyptus grandis

<400> 2276  
 Met Val Ser Val Asn Pro Asn Pro Ala Gln Gly Phe Tyr Phe Phe Asp  
 1 5 10 15  
 Pro Ala Asn Thr Arg Ile His Gly Val Asn Ala Gly Ser Ala Ala Glu  
 20 25 30  
 Gly Gly Gly Ala Ala Pro Pro Tyr Ala Glu Asp Pro Ser Lys Lys Val  
 35 40 45  
 Arg Lys Pro Tyr Thr Ile Thr Lys Ser Arg Glu Ser Trp Thr Glu Gln  
 50 55 60  
 Glu His Asp Lys Phe Leu Glu Ala Leu His Leu Phe Asp Arg Asp Trp  
 65 70 75 80  
 Lys Lys Ile Glu Ala Phe Val Gly Ser Lys Thr Val Ile Gln Ile Arg  
 85 90 95  
 Ser His Ala Gln Lys Tyr Phe Leu Lys Val Gln Lys Asn Gly Thr Ser  
 100 105 110  
 Glu His Val Pro Pro Pro Arg Pro Lys Arg Lys Ala Ala His Pro Tyr  
 115 120 125  
 Pro Gln Lys Ala Pro Lys Ala Pro Val Val Ser Gln Val Asn Gly Pro  
 130 135 140  
 Phe Gln Val Ser Ser Ala Phe Leu Glu Pro Gly His Ile Val Arg Pro  
 145 150 155 160  
 Asp Gly Ser Ala Leu Leu Gly Asn Ser Arg Thr Ser Val Ala Leu Ser  
 165 170 175  
 Ser Trp Ser His Asn Ser Val Pro Ala Met Ser Ala Ser Gln Gly Thr  
 180 185 190  
 Lys Asp Val Gly Ile Ser Gly Pro Pro Val Pro Ser Asn Cys Cys Asn  
 195 200 205  
 Ser Ser Ser Asn Asp Ser Thr Pro Arg Ser Trp Pro Asn Ala Gln Ala  
 210 215 220  
 Ile Glu Pro Leu Asp Gln Gln Lys His Leu Arg Val Met Pro Asp Phe  
 225 230 235 240  
 Ala Gln Val Tyr Arg Phe Ile Gly Ser Val Phe Asp Pro Asp Ala Gly  
 245 250 255  
 Gly His Leu Gln Arg Leu Lys Gln Met Asp Pro Ile Asn Leu Glu Thr  
 260 265 270  
 Val Val Leu Leu Met Lys Asn Leu Ser Ala Asn Leu Thr Ser Pro Glu  
 275 280 285  
 Phe Glu Lys Tyr Gln His Gly Leu Phe Ala Ser Tyr Glu Gly Gly Pro  
 290 295 300  
 Glu Lys Ser Lys Ser Gly Gly Ser Phe Lys Leu Leu Pro Glu Lys Ser  
 305 310 315 320  
 Gly Ser Leu Ile Leu Ser Ala  
 325

<210> 2277  
 <211> 225  
 <212> PRT  
 <213> Pinus radiata

<400> 2277  
 Met Gly Arg Ser Pro Cys Cys Glu Lys Ala His Thr Asn Lys Gly Ala  
 1 5 10 15  
 Trp Thr Lys Gln Glu Asp Asp Arg Leu Ile Ala His Ile Arg Ala His  
 20 25 30

Gly Glu Gly Gly Trp Arg Ser Leu Pro Lys Ala Ala Gly Leu Leu Arg  
                   35                  40                  45  
 Cys Gly Lys Ser Cys Arg Leu Arg Trp Ile Asn Tyr Leu Arg Pro Asp  
           50                  55                  60  
 Leu Lys Arg Gly Ser Phe Thr Glu Glu Asp Glu Leu Ile Ile Lys  
   65                  70                  75                  80  
 Leu His Ser Phe Val Gly Asn Lys Trp Ser Leu Ile Ala Gly Arg Leu  
                   85                  90                  95  
 Pro Gly Arg Thr Asp Asn Glu Ile Lys Asn Tyr Trp Asn Thr His Ile  
           100                  105                  110  
 Lys Arg Lys Leu Leu Ser Lys Gly Leu Asp Pro Gln Thr His Arg Pro  
           115                  120                  125  
 Leu Gly Gln Pro Asn Asn Thr Pro Val Thr Arg Pro Val Leu Glu His  
   130                  135                  140  
 Glu Ile Pro Ala Phe Gln Asn Pro Ala Thr Pro Glu Ile Ala Asp Leu  
  145                  150                  155                  160  
 Leu Gln His His Arg Leu Glu Ser Ser Pro Ile Lys Pro Ala Ala Ser  
                   165                  170                  175  
 Asp Ala Glu Glu His Pro Asp Leu Asn Leu Asn Leu Cys Ile Ser Leu  
           180                  185                  190  
 Pro Ser Asn Ser Ala Pro Ala Val Asn Arg Val Ser Ser Val Asp Thr  
           195                  200                  205  
 Thr Val Asp Ser Asn Ser Asn Ser Gly Asp Gly Leu Cys Trp Gln Phe  
  210                  215                  220  
 Leu  
 225

<210> 2278  
 <211> 69  
 <212> PRT  
 <213> Pinus radiata

<400> 2278  
 Met Leu Leu Gln Asn Val Pro Pro Ala Leu Leu Val Arg Phe Leu Arg  
   1                  5                  10                  15  
 Glu His Arg Ser Glu Trp Ala Asp Cys Asn Ile Asp Ala Tyr Ser Ser  
           20                  25                  30  
 Ala Thr Met Lys Ala Asn Ala Tyr Asn Val Pro Gly Ser Leu Gly Gly  
           35                  40                  45  
 Ile Thr Gly Ser Gln Val Ile Leu Pro Leu Ala His Thr Val Glu His  
   50                  55                  60  
 Glu Glu Phe Leu Glu  
 65

<210> 2279  
 <211> 65  
 <212> PRT  
 <213> Eucalyptus grandis

<400> 2279  
 Met Ala Arg Phe Pro Arg Val Asp Lys Ser Asn Ser Lys Lys Thr Val  
   1                  5                  10                  15  
 Lys Lys Gly Ala Trp Ser Ala Glu Glu Asp Gln Lys Leu Val Ala Tyr  
           20                  25                  30  
 Ile Lys Arg Tyr Gly Ile Trp Asn Trp Thr His Met Ala Glu Pro Ala  
           35                  40                  45  
 Gly Leu Ala Arg Thr Gly Lys Ser Cys Arg Leu Arg Trp Met Asn Tyr  
   50                  55                  60  
 Leu  
 65

<210> 2280  
 <211> 39  
 <212> PRT  
 <213> Eucalyptus grandis

<400> 2280  
 Pro Asn Ile Lys His Gly Asn Ile Thr Gln Glu Glu Glu Glu Ile Ile  
 1 5 10 15  
 Ile Asn Leu His Arg Val Leu Gly Asn Arg Trp Ala Ser Ile Ala Ser  
 20 25 30  
 Arg Leu Ser Gly Arg Thr Asp  
 35

<210> 2281  
 <211> 59  
 <212> PRT  
 <213> Eucalyptus grandis

<400> 2281  
 Arg Lys Pro Cys Cys Asp Lys Gln Asp Thr Asn Lys Gly Ala Trp Ser  
 1 5 10 15  
 Lys Gln Glu Asp Gln Lys Leu Ile Asp Tyr Ile Arg Lys His Gly Glu  
 20 25 30  
 Gly Cys Trp Arg Thr Leu Pro Lys Ala Ala Gly Leu Leu Arg Cys Gly  
 35 40 45  
 Lys Ser Cys Arg Leu Arg Trp Ile Asn Tyr Leu  
 50 55

<210> 2282  
 <211> 48  
 <212> PRT  
 <213> Eucalyptus grandis

<400> 2282  
 Pro Asp Leu Lys Arg Gly Asn Phe Ala Glu Asp Glu Glu Asp Leu Ile  
 1 5 10 15  
 Ile Lys Leu His Ala Leu Leu Gly Asn Arg Trp Ser Leu Ile Ala Gly  
 20 25 30  
 Arg Leu Pro Gly Arg Thr Asp Asn Glu Val Lys Asn Tyr Trp Asn Ser  
 35 40 45

<210> 2283  
 <211> 19  
 <212> PRT  
 <213> Eucalyptus grandis

<400> 2283  
 Cys Cys Ser Lys Lys Ala Val Lys Arg Gly Phe Trp Ser Pro Glu Glu  
 1 5 10 15  
 Asp Leu Lys

<210> 2284  
 <211> 45  
 <212> PRT  
 <213> Eucalyptus grandis

<400> 2284  
 Trp Thr Arg Glu Glu Asp Asn Leu Leu Ile His Ser Ile Thr Cys His  
 1 5 10 15  
 Gly Glu Gly Arg Trp Asn Met Leu Ala Lys Ser Ala Gly Leu Lys Arg

20 25 30  
 Thr Gly Lys Ser Cys Arg Leu Arg Trp Leu Asn Tyr Leu  
 35 40 45

<210> 2285  
 <211> 57  
 <212> PRT  
 <213> Eucalyptus grandis

<400> 2285  
 Arg Pro Asp Ile Lys Arg Gly Asn Leu Thr Pro Gln Glu Gln Leu Met  
 1 5 10 15  
 Ile Leu Glu Leu His His Lys Trp Gly Asn Arg Trp Ser Lys Ile Ala  
 20 25 30  
 Gln Tyr Leu Pro Gly Arg Thr Asp Asn Glu Ile Lys Asn Tyr Trp Arg  
 35 40 45  
 Thr Arg Val Gln Lys Gln Ala Arg Gln  
 50 55

<210> 2286  
 <211> 57  
 <212> PRT  
 <213> Eucalyptus grandis

<400> 2286  
 Met Ala Ser Arg Lys Glu Val Asp Arg Ile Lys Gly Pro Trp Ser Pro  
 1 5 10 15  
 Glu Glu Asp Glu Ala Leu Arg Leu Leu Val Gln Lys His Gly Pro Arg  
 20 25 30  
 Asn Trp Ser Leu Ile Ser Lys Ser Ile Pro Gly Arg Ser Gly Lys Ser  
 35 40 45  
 Cys Arg Leu Arg Trp Cys Asn Gln Leu  
 50 55

<210> 2287  
 <211> 68  
 <212> PRT  
 <213> Eucalyptus grandis

<400> 2287  
 Ser Pro Gln Val Glu His Arg Ala Phe Thr Pro Glu Glu Asp Asp Ile  
 1 5 10 15  
 Ile Val Arg Ala His Ala Arg Phe Gly Asn Lys Trp Ala Thr Ile Ala  
 20 25 30  
 Arg Leu Leu Ser Gly Arg Thr Asp Asn Ala Ile Lys Asn His Trp Asn  
 35 40 45  
 Ser Thr Leu Lys Arg Lys Cys Ser Pro Pro Leu Ser Pro Leu Ala Glu  
 50 55 60  
 Glu Gly Asn Asn  
 65

<210> 2288  
 <211> 61  
 <212> PRT  
 <213> Eucalyptus grandis

<400> 2288  
 Met Gly Arg His Ser Cys Cys Tyr Lys Gln Lys Leu Arg Lys Gly Leu  
 1 5 10 15  
 Trp Ser Pro Glu Glu Asp Glu Lys Leu Leu Arg Tyr Ile Thr Gln Tyr  
 20 25 30

Gly His Gly Cys Trp Ser Ser Val Pro Lys Leu Ala Gly Leu Gln Arg  
                   35                  40                  45  
 Cys Gly Lys Ser Cys Arg Leu Arg Trp Ile Asn Tyr Leu  
           50                  55                  60

<210> 2289  
 <211> 78  
 <212> PRT  
 <213> Eucalyptus grandis

<400> 2289  
 Gly Ser Ser Pro Ile Asp Gly Ser Asp Gly Tyr Leu Ser Asp Asp Pro  
   1                  5                  10                  15  
 Ala Pro Gly Ser Arg Ser Ser Asn Arg Arg Val Glu Arg Lys Lys Gly  
                   20                  25                  30  
 Asn Pro Trp Thr Glu Glu Glu His Arg Arg Phe Leu Ile Gly Leu Gln  
                   35                  40                  45  
 Lys Leu Gly Lys Gly Asp Trp Arg Gly Ile Ala Arg Asp Phe Val Thr  
   50                  55                  60  
 Thr Arg Thr Pro Thr Gln Val Ala Ser His Ala Gln Lys Tyr  
   65                  70                  75

<210> 2290  
 <211> 53  
 <212> PRT  
 <213> Eucalyptus grandis

<400> 2290  
 Lys Lys Gly Asn Pro Trp Thr Glu Glu Glu His Arg Arg Phe Leu Ile  
   1                  5                  10                  15  
 Gly Leu Gln Lys Leu Gly Lys Gly Asp Trp Arg Gly Ile Ala Arg Asp  
                   20                  25                  30  
 Phe Val Thr Thr Arg Thr Pro Thr Gln Val Ala Ser His Ala Gln Lys  
                   35                  40                  45  
 Tyr Tyr Ile Arg Gln  
   50

<210> 2291  
 <211> 59  
 <212> PRT  
 <213> Eucalyptus grandis

<400> 2291  
 Arg Lys Pro Cys Cys Asp Lys Arg Asp Thr Asn Lys Gly Ala Trp Ser  
   1                  5                  10                  15  
 Lys Gln Glu Asp Gln Lys Leu Ile Asp Tyr Ile Gln Lys His Gly Glu  
                   20                  25                  30  
 Gly Ser Trp Arg Thr Leu Pro Gln Ala Ala Gly Leu Leu Arg Cys Gly  
                   35                  40                  45  
 Lys Ser Cys Arg Leu Arg Trp Ile Asn Tyr Leu  
   50                  55

<210> 2292  
 <211> 65  
 <212> PRT  
 <213> Eucalyptus grandis

<400> 2292  
 Pro Asp Leu Lys Arg Gly Asn Phe Ala Glu Asp Glu Glu Asp Leu Ile  
   1                  5                  10                  15  
 Ile Lys Leu His Ala Leu Leu Gly Asn Arg Trp Ser Leu Ile Ala Gly

20 25 30  
 Arg Leu Pro Gly Arg Thr Asp Asn Glu Val Lys Asn Tyr Trp Asn Ser  
 35 40 45  
 His Leu Arg Arg Lys Leu Leu Lys Met Gly Ile Asp Pro Asn Asn His  
 50 55 60  
 Arg  
 65

<210> 2293  
 <211> 54  
 <212> PRT  
 <213> Eucalyptus grandis

<400> 2293  
 Met Gly Arg Ser Pro Cys Cys Glu Lys Ala His Thr Asn Lys Gly Ala  
 1 5 10 15  
 Trp Thr Lys Glu Glu Asp Gln Arg Leu Ile Asp Tyr Ile Arg Leu His  
 20 25 30  
 Gly Glu Gly Cys Trp Arg Ser Leu Pro Lys Ser Ala Gly Leu Leu Arg  
 35 40 45  
 Cys Gly Lys Ser Cys Arg  
 50

<210> 2294  
 <211> 65  
 <212> PRT  
 <213> Eucalyptus grandis

<400> 2294  
 Met Ala Arg Phe Pro Arg Val Asp Lys Ser Asn Ser Lys Lys Thr Val  
 1 5 10 15  
 Lys Lys Gly Ala Trp Ser Ala Glu Glu Asp Gln Lys Leu Val Ala Tyr  
 20 25 30  
 Ile Lys Arg Tyr Gly Ile Trp Asn Trp Thr His Met Ala Glu Pro Ala  
 35 40 45  
 Gly Leu Ala Arg Thr Gly Lys Ser Cys Arg Leu Arg Trp Met Asn Tyr  
 50 55 60  
 Leu  
 65

<210> 2295  
 <211> 40  
 <212> PRT  
 <213> Eucalyptus grandis

<400> 2295  
 Arg Pro Asn Ile Lys His Gly Asn Ile Thr Gln Glu Glu Glu Ile  
 1 5 10 15  
 Ile Ile Asn Leu His Arg Val Leu Gly Asn Arg Trp Ala Ser Ile Ala  
 20 25 30  
 Ser Arg Leu Ser Gly Arg Thr Asp  
 35 40

<210> 2296  
 <211> 41  
 <212> PRT  
 <213> Eucalyptus grandis

<400> 2296  
 Arg Lys Gly Val Pro Trp Thr Glu Glu Glu His Arg Thr Phe Leu Met  
 1 5 10 15

Gly Leu Glu Lys Met Gly Lys Gly Asp Trp Arg Gly Ile Ser Arg Asn  
                   20                  25                  30  
 Tyr Val Thr Thr Arg Thr Pro Thr Gln  
                   35                  40

<210> 2297  
 <211> 31  
 <212> PRT  
 <213> Eucalyptus grandis

<400> 2297  
 Arg Lys Gly Val Pro Trp Thr Glu Glu Glu His Arg Thr Phe Leu Met  
   1                  5                  10                  15  
 Gly Leu Glu Lys Met Gly Lys Gly Asp Trp Arg Gly Ile Ser Arg  
                   20                  25                  30

<210> 2298  
 <211> 44  
 <212> PRT  
 <213> Eucalyptus grandis

<400> 2298  
 Glu Val Arg Lys Gly Pro Trp Thr Glu Gln Glu Asp Phe Gln Leu Val  
   1                  5                  10                  15  
 Cys Phe Val Gly Leu Phe Gly Asp Arg Arg Trp Asp Phe Ile Ala Lys  
                   20                  25                  30  
 Val Ser Gly Leu Lys Val Ala Gly Glu Asn Asn Arg  
                   35                  40

<210> 2299  
 <211> 61  
 <212> PRT  
 <213> Eucalyptus grandis

<400> 2299  
 Met Gly Arg Ser Pro Cys Cys Glu Ser Glu His Met Asn Lys Gly Ala  
   1                  5                  10                  15  
 Trp Ser Lys Glu Glu Asp Glu Arg Leu Ile Ala Tyr Ile Lys Arg His  
                   20                  25                  30  
 Gly Glu Gly Cys Trp Arg Ser Leu Pro Lys Ala Ala Gly Leu Leu Arg  
                   35                  40                  45  
 Cys Gly Lys Ser Cys Arg Leu Arg Trp Ile Asn Tyr Leu  
                   50                  55                  60

<210> 2300  
 <211> 67  
 <212> PRT  
 <213> Eucalyptus grandis

<400> 2300  
 Pro Asp Leu Lys Arg Gly Asn Phe Ser Asp Glu Glu Asp Glu Leu Ile  
   1                  5                  10                  15  
 Ile Thr Leu His Ser Leu Leu Gly Asn Lys Trp Ser Leu Ile Ala Ala  
                   20                  25                  30  
 Arg Leu Pro Gly Arg Thr Asp Asn Glu Ile Lys Asn Tyr Trp Asn Thr  
                   35                  40                  45  
 His Ile Lys Arg Lys Leu His Ala Arg Gly Ile Asp Pro Gln Thr His  
                   50                  55                  60  
 Arg Pro Leu  
 65

<210> 2301  
 <211> 50  
 <212> PRT  
 <213> Eucalyptus grandis

<400> 2301  
 Lys Arg Gly Val Pro Trp Thr Glu Glu Glu His Arg Leu Phe Leu Leu  
 1 5 10 15  
 Gly Leu Gln Lys Val Gly Lys Gly Asp Trp Arg Ala Ile Ser Arg Asn  
 20 25 30  
 Phe Val Lys Thr Arg Thr Pro Thr Gln Val Ala Ser His Ala Gln Lys  
 35 40 45  
 Tyr Phe  
 50

<210> 2302  
 <211> 53  
 <212> PRT  
 <213> Eucalyptus grandis

<400> 2302  
 Lys Arg Gly Val Pro Trp Thr Glu Glu Glu His Arg Leu Phe Leu Leu  
 1 5 10 15  
 Gly Leu Gln Lys Val Gly Lys Gly Asp Trp Arg Ala Ile Ser Arg Asn  
 20 25 30  
 Phe Val Lys Thr Arg Thr Pro Thr Gln Val Ala Ser His Ala Gln Lys  
 35 40 45  
 Tyr Phe Leu Arg Arg  
 50

<210> 2303  
 <211> 64  
 <212> PRT  
 <213> Eucalyptus grandis

<400> 2303  
 Met Ala Ser Ser Ser Ser Val Ala Ser Ala Arg Lys Asp Ala Asp Arg  
 1 5 10 15  
 Ile Lys Gly Pro Trp Ser Pro Glu Glu Asp Glu Ala Leu Gln Arg Leu  
 20 25 30  
 Val Gln Ser Tyr Gly Pro Arg Asn Trp Ser Leu Ile Ser Lys Ser Ile  
 35 40 45  
 Pro Gly Arg Ser Gly Lys Ser Cys Arg Leu Arg Trp Cys Asn Gln Leu  
 50 55 60

<210> 2304  
 <211> 98  
 <212> PRT  
 <213> Eucalyptus grandis

<400> 2304  
 Ser Pro Gln Val Glu His Arg Pro Phe Thr Pro Glu Glu Asp Glu Ala  
 1 5 10 15  
 Ile Val Arg Ala His Ala Arg Phe Gly Asn Lys Trp Ala Thr Ile Ala  
 20 25 30  
 Arg Leu Leu Asn Gly Arg Thr Asp Asn Ala Val Lys Asn His Trp Asn  
 35 40 45  
 Ser Thr Leu Lys Arg Lys Cys Ser Ser Thr Cys Ser Ala Gly Gly Asp  
 50 55 60  
 Asp Ala Asp Ala Leu Ala Glu Gln Gln Pro Leu Lys Arg Ser Ala Ser  
 65 70 75 80



Leu Gly Thr Pro Thr Gly Gly Asn Asn Ala Val Ser Asp Leu Phe Phe  
85 90 95  
Ser Pro

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<210> 2305
<211> 50
<212> PRT
<213> Eucalyptus grandis
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[illegible]

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<210> 2306
<211> 60
<212> PRT
<213> Eucalyptus grandis
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<400> 2306															
Pro	Asp	Leu	Lys	Arg	Gly	Ala	Phe	Ser	Pro	Gln	Glu	Glu	Glu	Leu	Ile
1				5					10					15	
Ile	His	Leu	His	Ser	Ile	Leu	Gly	Asn	Arg	Trp	Ser	Gln	Ile	Ala	Ala
			20					25					30		
Arg	Leu	Pro	Gly	Arg	Thr	Asp	Asn	Glu	Ile	Lys	Asn	Phe	Trp	Asn	Ser
		35				40						45			
Thr	Ile	Lys	Lys	Arg	Ser	Arg	Thr	Arg	His	His	Leu				
	50					55					60				

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<210> 2307
<211> 44
<212> PRT
<213> Eucalyptus grandis
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      <400> 2307
Lys Leu Asp Phe Ser Glu Asp Glu Glu Thr Leu Val Ile Arg Met Tyr
 1          5          10          15
Asn Leu Val Gly Glu Arg Trp Ser Leu Ile Ala Gly Arg Ile Pro Gly
 20          25          30
Arg Thr Ala Glu Glu Ile Glu Lys Tyr Trp Asn Ser
 35          40

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<210> 2308
<211> 61
<212> PRT
<213> Eucalyptus grandis
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<400> 2308															
Met	Gly	Arg	Gln	Pro	Cys	Cys	Asp	Lys	Leu	Gly	Val	Lys	Lys	Gly	Pro
1				5					10					15	
Trp	Thr	Ala	Glu	Glu	Asp	Arg	Lys	Leu	Val	Asn	Phe	Ile	Leu	Thr	His
			20					25					30		
Gly	Gln	Cys	Cys	Trp	Arg	Ala	Val	Pro	Lys	Leu	Ala	Gly	Leu	Arg	Arg
		35					40					45			
Cys	Gly	Lys	Ser	Cys	Arg	Leu	Arg	Trp	Thr	Asn	Tyr	Leu			

50

55

60

<210> 2309  
 <211> 64  
 <212> PRT  
 <213> Eucalyptus grandis

<400> 2309  
 Pro Asp Leu Lys Arg Gly Leu Leu Asn Glu Ala Glu Glu Ser Leu Val  
 1 5 10 15  
 Ile Asp Leu His Ala Thr Leu Gly Asn Arg Trp Ser Lys Ile Ala Ala  
 20 25 30  
 Arg Leu Pro Gly Arg Thr Asp Asn Glu Ile Lys Asn His Trp Asn Thr  
 35 40 45  
 His Ile Lys Lys Lys Leu Ile Arg Met Gly Ile Asp Pro Val Thr His  
 50 55 60

<210> 2310  
 <211> 61  
 <212> PRT  
 <213> Eucalyptus grandis

<400> 2310  
 Met Gly Arg Gln Pro Cys Cys Asp Lys Ser Gly Val Lys Lys Gly Pro  
 1 5 10 15  
 Trp Thr Ala Glu Glu Asp Lys Lys Leu Ile Asn Phe Ile Leu Thr Asn  
 20 25 30  
 Gly His Cys Cys Trp Arg Ala Val Pro Lys Leu Ala Gly Leu Arg Arg  
 35 40 45  
 Cys Gly Lys Ser Cys Arg Leu Arg Trp Thr Asn Tyr Leu  
 50 55 60

<210> 2311  
 <211> 67  
 <212> PRT  
 <213> Eucalyptus grandis

<400> 2311  
 Pro Asp Leu Lys Arg Gly Leu Leu Ser Glu Ala Glu Glu Gln Leu Val  
 1 5 10 15  
 Ile Asp Leu His Ala Arg Leu Gly Asn Arg Trp Ser Lys Ile Ala Ala  
 20 25 30  
 Arg Leu Pro Gly Arg Thr Asp Asn Glu Ile Lys Asn His Trp Asn Thr  
 35 40 45  
 His Ile Lys Lys Lys Leu Leu Lys Met Gly Ile Asp Pro Val Thr His  
 50 55 60  
 Glu Pro Leu  
 65

<210> 2312  
 <211> 50  
 <212> PRT  
 <213> Pinus radiata

<400> 2312  
 Lys Lys Gly Val Pro Trp Ser Glu Glu Glu His Arg Met Phe Leu Tyr  
 1 5 10 15  
 Gly Leu Glu Lys Leu Gly Lys Gly Asp Trp Arg Gly Ile Ser Arg Asn  
 20 25 30  
 Phe Val Thr Thr Arg Thr Pro Thr Gln Val Ala Ser His Ala Gln Lys  
 35 40 45

Tyr Phe  
50

<210> 2313  
<211> 53  
<212> PRT  
<213> Pinus radiata

<400> 2313  
Lys Lys Gly Val Pro Trp Ser Glu Glu Glu His Arg Met Phe Leu Tyr  
1 5 10 15  
Gly Leu Glu Lys Leu Gly Lys Gly Asp Trp Arg Gly Ile Ser Arg Asn  
20 25 30  
Phe Val Thr Thr Arg Thr Pro Thr Gln Val Ala Ser His Ala Gln Lys  
35 40 45  
Tyr Phe Leu Arg Gln  
50

<210> 2314  
<211> 60  
<212> PRT  
<213> Pinus radiata

<400> 2314  
Gly Lys Ser Pro Gly His Asp Glu Pro Asp Arg Ile Lys Gly Pro Trp  
1 5 10 15  
Ser Pro Glu Glu Asp Ala Ala Leu Gln His Phe Val Gln Lys Tyr Gly  
20 25 30  
Pro Arg Asn Trp Ser Leu Ile Ser Lys Ala Ile Pro Gly Arg Ser Gly  
35 40 45  
Lys Ser Cys Arg Leu Arg Trp Cys Asn Gln Leu Ser  
50 55 60

<210> 2315  
<211> 60  
<212> PRT  
<213> Pinus radiata

<400> 2315  
Pro Gln Val Glu His Arg Pro Phe Thr Pro Glu Glu Asp Ala Thr Ile  
1 5 10 15  
Val Arg Ala His Ala Gln His Gly Asn Lys Trp Ala Thr Ile Ala Arg  
20 25 30  
Met Leu Ser Gly Arg Thr Asp Asn Ala Ile Lys Asn His Trp Asn Ser  
35 40 45  
Thr Leu Arg Arg Arg Cys Gln Gly Gly Gly Ala Leu  
50 55 60

<210> 2316  
<211> 20  
<212> PRT  
<213> Pinus radiata

<400> 2316  
Lys Arg Gly Val Pro Trp Thr Glu Glu Glu His Arg Met Phe Leu Val  
1 5 10 15  
Gly Leu Gln Arg  
20

<210> 2317  
<211> 18

<212> PRT  
 <213> Pinus radiata

<400> 2137  
 Lys Arg Gly Val Pro Trp Thr Glu Glu Glu His Arg Met Phe Leu Val  
 1 5 10 15  
 Gly Leu

<210> 2318  
 <211> 10  
 <212> PRT  
 <213> Pinus radiata

<400> 2318  
 Lys Arg Gly Val Pro Trp Thr Glu Glu Glu  
 1 5 10

<210> 2319  
 <211> 14  
 <212> PRT  
 <213> Pinus radiata

<400> 2319  
 Lys Arg Gly Val Pro Trp Thr Glu Glu Glu His Arg Met Phe  
 1 5 10

<210> 2320  
 <211> 68  
 <212> PRT  
 <213> Pinus radiata

<400> 2320  
 Met Arg Cys Thr Arg Trp Gln Gly Leu Pro Phe Ser Ser Lys Pro Lys  
 1 5 10 15  
 Val Lys Lys Gly Leu Trp Ser Pro Glu Glu Asp Glu Lys Leu Ile Asn  
 20 25 30  
 Tyr Met Met Lys Asn Gly Leu Leu Gly Cys Ser Trp Ser Tyr Val Ala  
 35 40 45  
 Lys Gln Ile Gly Leu Gln Arg Cys Gly Lys Ser Cys Arg Leu Arg Trp  
 50 55 60  
 Thr Asn Tyr Leu  
 65

<210> 2321  
 <211> 62  
 <212> PRT  
 <213> Pinus radiata

<400> 2321  
 Met Gly Arg Ala Pro Cys Cys Asp Lys Ala Asn Val Lys Lys Gly Pro  
 1 5 10 15  
 Trp Ser Pro Glu Glu Asp Thr Lys Leu Lys Ala Phe Ile Glu Gln His  
 20 25 30  
 Gly Thr Gly Gly Asn Trp Ile Ala Leu Pro Gln Lys Ala Gly Leu Lys  
 35 40 45  
 Arg Cys Gly Lys Ser Cys Arg Leu Arg Trp Leu Asn Tyr Leu  
 50 55 60

<210> 2322  
 <211> 60

<212> PRT  
 <213> Pinus radiata

<400> 2322  
 Met Gly Arg Ser Pro Cys Cys Glu Lys Ala His Thr Asn Lys Gly Ala  
 1 5 10 15  
 Trp Thr Lys Glu Glu Asp Asp Arg Leu Ile Ala His Ile Arg Thr His  
 20 25 30  
 Gly Glu Gly Cys Trp Arg Ser Leu Pro Lys Ala Ala Gly Leu Met Arg  
 35 40 45  
 Cys Gly Lys Ser Cys Arg Leu Arg Trp Ile Asn Tyr  
 50 55 60

<210> 2323  
 <211> 46  
 <212> PRT  
 <213> Pinus radiata

<400> 2323  
 Arg Pro Asp Leu Lys Arg Gly Asn Phe Ser Glu Glu Glu Asp Glu Leu  
 1 5 10 15  
 Ile Ile Lys Leu His Ser Leu Leu Gly Asn Lys Trp Ser Leu Ile Ala  
 20 25 30  
 Gly Arg Leu Pro Gly Arg Thr Asp Asn Glu Ile Lys Asn Tyr  
 35 40 45

<210> 2324  
 <211> 61  
 <212> PRT  
 <213> Pinus radiata

<400> 2324  
 Met Gly Arg Ala Pro Cys Cys Glu Lys Val Gly Leu Lys Lys Gly Pro  
 1 5 10 15  
 Trp Thr Pro Glu Glu Asp Gln Lys Leu Leu Ala Tyr Ile Gln Glu His  
 20 25 30  
 Gly His Gly Ser Trp Arg Ala Leu Pro Gln Lys Ala Gly Leu Leu Arg  
 35 40 45  
 Cys Gly Lys Ser Cys Arg Leu Arg Trp Thr Asn Tyr Leu  
 50 55 60

<210> 2325  
 <211> 61  
 <212> PRT  
 <213> Pinus radiata

<400> 2325  
 Met Gly Arg Ser Pro Cys Cys Glu Lys Ala His Thr Asn Lys Gly Ala  
 1 5 10 15  
 Trp Thr Lys Glu Glu Asp Asp Arg Leu Ile Ala His Ile Arg Thr His  
 20 25 30  
 Gly Glu Gly Cys Trp Arg Ser Leu Pro Lys Ala Ala Gly Leu Met Arg  
 35 40 45  
 Cys Gly Lys Ser Cys Arg Leu Arg Trp Ile Asn Tyr Leu  
 50 55 60

<210> 2326  
 <211> 45  
 <212> PRT  
 <213> Pinus radiata

<400> 2326  
 Pro Asp Leu Lys Arg Gly Asn Phe Ser Glu Glu Glu Asp Glu Leu Val  
 1 5 10 15  
 Ile Lys Leu His Ser Leu Leu Gly Asn Lys Trp Ser Leu Ile Ala Gly  
 20 25 30  
 Arg Leu Pro Gly Arg Thr Asp Asn Glu Ile Lys Asn Tyr  
 35 40 45

<210> 2327  
 <211> 50  
 <212> PRT  
 <213> Pinus radiata

<400> 2327  
 Lys Lys Gly Val Pro Trp Thr Glu Glu Glu His Arg Met Phe Leu Leu  
 1 5 10 15  
 Gly Leu Gln Lys Leu Gly Lys Gly Asp Trp Arg Gly Ile Ala Arg Asn  
 20 25 30  
 Phe Val Ile Thr Arg Thr Pro Thr Gln Val Ala Ser His Ala Gln Lys  
 35 40 45  
 Tyr Phe  
 50

<210> 2328  
 <211> 53  
 <212> PRT  
 <213> Pinus radiata

<400> 2328  
 Lys Lys Gly Val Pro Trp Thr Glu Glu Glu His Arg Met Phe Leu Leu  
 1 5 10 15  
 Gly Leu Gln Lys Leu Gly Lys Gly Asp Trp Arg Gly Ile Ala Arg Asn  
 20 25 30  
 Phe Val Ile Thr Arg Thr Pro Thr Gln Val Ala Ser His Ala Gln Lys  
 35 40 45  
 Tyr Phe Ile Arg Gln  
 50

<210> 2329  
 <211> 48  
 <212> PRT  
 <213> Pinus radiata

<400> 2329  
 Gln Arg Glu Arg Trp Ser Glu Asp Glu His Leu Lys Phe Leu Glu Ala  
 1 5 10 15  
 Leu Lys Met Tyr Gly Arg Ala Trp Arg Arg Ile Glu Glu His Ile Gly  
 20 25 30  
 Thr Lys Thr Ala Val Gln Ile Arg Ser His Ala Gln Lys Phe Phe Ser  
 35 40 45

<210> 2330  
 <211> 42  
 <212> PRT  
 <213> Pinus radiata

<400> 2330  
 Gln Arg Glu Arg Trp Ser Glu Asp Glu His Leu Lys Phe Leu Glu Ala  
 1 5 10 15  
 Leu Lys Met Tyr Gly Arg Ala Trp Arg Arg Ile Glu Glu His Ile Gly  
 20 25 30

Thr Lys Thr Ala Val Gln Ile Arg Ser His  
35 40

<210> 2331  
<211> 61  
<212> PRT  
<213> Pinus radiata

<400> 2331  
Met Gly Arg Thr Pro Cys Cys Leu Lys Val Gly Leu Asn Arg Gly Pro  
1 5 10 15  
Trp Thr Pro Glu Glu Asp Leu Cys Leu Ser Asn Tyr Ile Glu Ala His  
20 25 30  
Gly Glu Gly Gly Trp Arg Thr Leu Pro Lys Lys Ala Gly Leu Leu Arg  
35 40 45  
Cys Gly Lys Ser Cys Arg Leu Arg Trp Met Asn Tyr Leu  
50 55 60

<210> 2332  
<211> 67  
<212> PRT  
<213> Pinus radiata

<400> 2332  
Pro Asp Val Lys His Gly His Ile Leu Pro Glu Glu Glu Asp Leu Ile  
1 5 10 15  
Leu Arg Leu His Arg Leu Leu Gly Asn Arg Trp Ser Leu Ile Ala Gly  
20 25 30  
Arg Met Pro Gly Arg Thr Asp Asn Glu Val Lys Asn Tyr Trp Asn Thr  
35 40 45  
His Leu Ser Lys Lys Leu Ile Ser Gln Gly Ile Asp Pro Arg Thr His  
50 55 60  
Lys Pro Leu  
65

<210> 2333  
<211> 55  
<212> PRT  
<213> Pinus radiata

<400> 2333  
Cys Glu Asp Leu Asp Arg Ile Lys Gly Pro Trp Ser Pro Glu Glu Asp  
1 5 10 15  
Ala Ser Leu Gln Arg Leu Val Gln Lys Tyr Gly Pro Arg Asn Trp Thr  
20 25 30  
Leu Ile Ser Lys Gly Ile Pro Gly Arg Ser Gly Lys Ser Cys Arg Leu  
35 40 45  
Arg Trp Cys Asn Gln Leu Ser  
50 55

<210> 2334  
<211> 56  
<212> PRT  
<213> Pinus radiata

<400> 2334  
Lys Gly Pro Trp Ser Pro Glu Glu Asp Ala Ser Leu Gln Arg Leu Val  
1 5 10 15  
Gln Lys Tyr Gly Pro Arg Asn Trp Thr Leu Ile Ser Lys Gly Ile Pro  
20 25 30  
Gly Arg Ser Gly Lys Ser Cys Arg Leu Arg Trp Cys Asn Gln Leu Ser

35 40 45  
 Pro Gln Val Glu His Arg Pro Phe  
 50 55  
 <210> 2335  
 <211> 34  
 <212> PRT  
 <213> Pinus radiata  
 <400> 2335  
 Met Gly Ala Pro Lys Gln Lys Trp Thr Ser Glu Glu Glu Gly Ala Leu  
 1 5 10 15  
 Arg Ala Gly Val Glu Lys Tyr Gly Ala Gly Lys Trp Gln Thr Ile Leu  
 20 25 30  
 Lys Asp

<210> 2336  
 <211> 51  
 <212> PRT  
 <213> Pinus radiata

<400> 2336  
 Leu Arg Lys Gly Leu Trp Ser Pro Asp Glu Asp Ile Glu Leu Thr Thr  
 1 5 10 15  
 Tyr Ile Met Arg Lys Gly Leu Met Gly Cys Trp Asn Tyr Ile Ala Lys  
 20 25 30  
 Gln Ala Gly Leu Gln Arg Cys Gly Lys Ser Cys Arg Leu Arg Trp Ile  
 35 40 45  
 Asn Tyr Leu  
 50

<210> 2337  
 <211> 45  
 <212> PRT  
 <213> Pinus radiata

<400> 2337  
 Pro Gly Leu Lys Arg Cys Ala Ile Ser Pro Gln Glu Glu Arg Leu Ile  
 1 5 10 15  
 Ile Gln Leu Gln Ser Ser Leu Gly Asn Arg Trp Ser Gln Ile Ala Ala  
 20 25 30  
 His Leu Pro Gly Arg Thr Asp Asn Glu Val Lys Asn Tyr  
 35 40 45

<210> 2338  
 <211> 62  
 <212> PRT  
 <213> Pinus radiata

<400> 2338  
 Met Gly Arg Ser Pro Cys Cys Glu Lys Ala His Thr Asn Lys Gly Ala  
 1 5 10 15  
 Trp Thr Gln Gln Glu Asp Thr Arg Leu Val Ala His Ile Arg Ala His  
 20 25 30  
 Gly Gln Gly Gly Trp Ser Ser Leu Pro Lys Ala Ala Gly Leu Leu Arg  
 35 40 45  
 Cys Gly Lys Ser Cys Arg Gln Arg Trp Ile Asn Tyr Leu His  
 50 55 60

<210> 2339



<211> 39  
 <212> PRT  
 <213> Pinus radiata

<400> 2339  
 Pro Asp Leu Lys Arg Ser Asn Phe Ser Glu Glu Glu Asp Glu Leu Ile  
 1 5 10 15  
 Val Arg Leu His Ser Leu Leu Gly Asn Lys Trp Ser Leu Ile Ala Gly  
 20 25 30  
 Arg Leu Pro Gly Arg Thr Asp  
 35

<210> 2340  
 <211> 61  
 <212> PRT  
 <213> Pinus radiata

<400> 2340  
 Gly Thr His Pro Ala Pro Ser Lys Pro Lys Leu Arg Lys Gly Leu Trp  
 1 5 10 15  
 Ser Pro Val Glu Asp Asn Gln Leu Thr Asn Tyr Ile Leu Arg Arg Gly  
 20 25 30  
 Leu Val Gly Cys Trp Asn Tyr Val Ala Lys Gln Ala Gly Leu Gln Arg  
 35 40 45  
 Thr Gly Lys Ser Cys Arg Leu Arg Trp Ile Asn Tyr Leu  
 50 55 60

<210> 2341  
 <211> 43  
 <212> PRT  
 <213> Pinus radiata

<400> 2341  
 Pro Gly Leu Lys Arg His Pro Ile Ser Arg Gln Glu Glu Gln Leu Ile  
 1 5 10 15  
 Ile Glu Leu Gln Ser Ile Leu Gly Asn Arg Trp Ser Gln Ile Ala Ala  
 20 25 30  
 Gln Leu Pro Gly Arg Thr Asp Ile Glu Ile Lys  
 35 40

<210> 2342  
 <211> 61  
 <212> PRT  
 <213> Eucalyptus grandis

<400> 2342  
 Met Gly Arg His Ser Cys Cys Tyr Lys Gln Lys Leu Arg Lys Gly Leu  
 1 5 10 15  
 Trp Ser Pro Glu Glu Asp Glu Lys Leu Leu Arg His Ile Ser Gln Tyr  
 20 25 30  
 Gly His Gly Cys Trp Ser Ser Val Pro Lys Gln Ala Gly Leu Gln Arg  
 35 40 45  
 Cys Gly Lys Ser Cys Arg Leu Arg Trp Ile Asn Tyr Leu  
 50 55 60

<210> 2343  
 <211> 67  
 <212> PRT  
 <213> Eucalyptus grandis

<400> 2343

Pro Asp Leu Lys Arg Gly Ala Phe Ser Gln Asp Glu Glu Asp Leu Ile  
 1 5 10 15  
 Ile Glu Leu His Ala Ala Leu Gly Asn Lys Trp Ser Gln Ile Ala Ala  
 20 25 30  
 Asn Leu Pro Gly Arg Thr Asp Asn Glu Ile Lys Asn Leu Trp Asn Ser  
 35 40 45  
 Cys Leu Lys Lys Lys Leu Arg Gln Arg Gly Ile Asp Pro Val Ser His  
 50 55 60  
 Arg Pro Leu  
 65

<210> 2344  
 <211> 58  
 <212> PRT  
 <213> Eucalyptus grandis

<400> 2344  
 Thr Pro Cys Cys Ser Lys Val Gly Ile Lys Arg Gly Pro Trp Thr Pro  
 1 5 10 15  
 Glu Glu Asp Glu Val Leu Ala Ser Tyr Val Arg Arg Glu Gly Glu Gly  
 20 25 30  
 Arg Trp Arg Thr Leu Pro Lys Arg Ala Gly Leu Gln Arg Cys Gly Lys  
 35 40 45  
 Ser Cys Arg Leu Arg Trp Met Asn Tyr Leu  
 50 55

<210> 2345  
 <211> 67  
 <212> PRT  
 <213> Eucalyptus grandis

<400> 2345  
 Pro Ser Val Lys Arg Gly Gln Ile Ala Pro Asp Glu Glu Asp Leu Ile  
 1 5 10 15  
 Leu Arg Leu His Arg Leu Leu Gly Asn Arg Trp Ser Leu Ile Ala Gly  
 20 25 30  
 Arg Ile Pro Gly Arg Thr Asp Asn Glu Ile Lys Asn Tyr Trp Asn Thr  
 35 40 45  
 His Leu Ser Lys Lys Leu Ile Ser Gln Gly Ile Asp Pro Arg Thr His  
 50 55 60  
 Lys Pro Leu  
 65

<210> 2346  
 <211> 67  
 <212> PRT  
 <213> Eucalyptus grandis

<400> 2346  
 Met Asp Lys Lys Pro Asp Asp Asp Ser Gly Lys Ser Gln Asp Val Glu  
 1 5 10 15  
 Val Arg Lys Gly Pro Trp Thr Met Glu Glu Asp Leu Ile Leu Ile Asn  
 20 25 30  
 Tyr Ile Ala Asn His Gly Glu Gly Ser Trp Asn Ser Leu Ala Lys Ala  
 35 40 45  
 Ala Gly Leu Lys Arg Thr Gly Lys Ser Cys Arg Leu Arg Trp Leu Asn  
 50 55 60  
 Tyr Leu Arg  
 65

<210> 2347

<211> 56  
 <212> PRT  
 <213> Eucalyptus grandis

<400> 2347  
 Pro Asp Val Arg Arg Gly Asn Ile Thr Thr Glu Glu Gln Leu Leu Ile  
 1 5 10 15  
 Met Glu Leu His Ala Lys Trp Gly Asn Arg Trp Ser Lys Ile Ala Lys  
 20 25 30  
 His Leu Pro Gly Arg Thr Asp Asn Glu Ile Lys Asn Phe Trp Arg Thr  
 35 40 45  
 Arg Ile Gln Lys His Ile Lys Gln  
 50 55

<210> 2348  
 <211> 63  
 <212> PRT  
 <213> Eucalyptus grandis

<400> 2348  
 Met Asp Lys Lys Pro Cys Tyr Arg Thr Gln Asp Pro Gln Val Arg Lys  
 1 5 10 15  
 Gly Pro Trp Thr Leu Glu Glu Asp Leu Ile Leu Met Asp Tyr Ile Ala  
 20 25 30  
 Asn His Gly Glu Gly Val Trp Asn Ser Leu Ala Lys Ala Ala Gly Leu  
 35 40 45  
 Gln Arg Thr Gly Lys Ser Cys Arg Leu Arg Trp Leu Asn Tyr Leu  
 50 55 60

<210> 2349  
 <211> 54  
 <212> PRT  
 <213> Eucalyptus grandis

<400> 2349  
 Pro Asp Val Arg Arg Gly Asn Ile Thr Pro Glu Glu Gln Leu Leu Ile  
 1 5 10 15  
 Ile His Leu Gln Ser Met Trp Gly Asn Arg Trp Ser Glu Ile Ala Lys  
 20 25 30  
 His Leu Pro Gly Arg Thr Asp Asn Glu Ile Lys Asn Tyr Trp Arg Thr  
 35 40 45  
 Lys Ile Gln Lys His Ile  
 50

<210> 2350  
 <211> 47  
 <212> PRT  
 <213> Eucalyptus grandis

<400> 2350  
 Ser Arg Glu Ser Trp Thr Glu Gln Glu His Asp Lys Phe Leu Glu Ala  
 1 5 10 15  
 Leu His Leu Phe Asp Arg Asp Trp Lys Lys Ile Glu Ala Phe Val Gly  
 20 25 30  
 Ser Lys Thr Val Ile Gln Ile Arg Ser His Ala Gln Lys Tyr Phe  
 35 40 45

<210> 2351  
 <211> 59  
 <212> PRT  
 <213> Eucalyptus grandis

<400> 2351  
 Ser Trp Thr Glu Gln Glu His Asp Lys Phe Leu Glu Ala Leu His Leu  
 1 5 10 15  
 Phe Asp Arg Asp Trp Lys Lys Ile Glu Ala Phe Val Gly Ser Lys Thr  
 20 25 30  
 Val Ile Gln Ile Arg Ser His Ala Gln Lys Tyr Phe Leu Lys Val Gln  
 35 40 45  
 Lys Asn Gly Thr Ser Glu His Val Pro Pro Pro  
 50 55

<210> 2352  
 <211> 45  
 <212> PRT  
 <213> Pinus radiata

<400> 2352  
 Met Gly Arg Ser Pro Cys Cys Glu Lys Ala His Thr Asn Lys Gly Ala  
 1 5 10 15  
 Trp Thr Lys Gln Glu Asp Asp Arg Leu Ile Ala His Ile Arg Ala His  
 20 25 30  
 Gly Glu Gly Gly Trp Arg Ser Leu Pro Lys Ala Ala Gly  
 35 40 45

<210> 2353  
 <211> 45  
 <212> PRT  
 <213> Pinus radiata

<400> 2353  
 Met Gly Arg Ala Pro Cys Cys Glu Lys Val Gly Leu Lys Lys Gly Pro  
 1 5 10 15  
 Trp Thr Pro Glu Glu Asp Gln Lys Leu Val Thr Tyr Ile Gln Glu His  
 20 25 30  
 Gly His Gly Ser Trp Arg Ala Leu Pro Gln Lys Ala Gly  
 35 40 45

<210> 2354  
 <211> 61  
 <212> PRT  
 <213> Pinus radiata

<400> 2354  
 Met Gly Arg Ser Pro Cys Cys Ala Lys Glu Gly Leu Asn Arg Gly Ala  
 1 5 10 15  
 Trp Thr Lys Thr Glu Asp Ile Ile Leu Ser Glu Tyr Ile Arg Ile His  
 20 25 30  
 Gly Asp Gly Gly Trp Arg Ser Leu Pro Lys Lys Ala Gly Leu Lys Arg  
 35 40 45  
 Cys Gly Lys Ser Cys Arg Leu Arg Trp Leu Asn Tyr Leu  
 50 55 60

<210> 2355  
 <211> 61  
 <212> PRT  
 <213> Pinus radiata

<400> 2355  
 Met Gly Arg Ala Pro Cys Cys Ser Asn Asp Asp Arg Asn Lys Gly Ala  
 1 5 10 15  
 Trp Thr Lys Glu Glu Asp Asp Arg Leu Ile Gln Tyr Ile Lys Val His

			20					25					30			
Gly	Glu	Gly	Cys	Trp	Arg	Ser	Leu	Pro	Lys	Ala	Ala	Gly	Leu	Leu	Arg	
		35					40					45				
Cys	Gly	Lys	Ser	Cys	Arg	Leu	Arg	Trp	Ile	Asn	Tyr	Leu				
	50					55					60					

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<210> 2356
<211> 68
<212> PRT
<213> Pinus radiata
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[illegible]

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<210> 2357
<211> 61
<212> PRT
<213> Pinus radiata
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<400> 2357															
Met	Gly	Arg	Ala	Pro	Cys	Cys	Ser	Asn	Gly	Asp	Arg	Asn	Lys	Gly	Ala
1			5					10					15		
Trp	Thr	Lys	Glu	Asp	Asp	Arg	Leu	Ile	Gln	Tyr	Ile	Lys	Val	His	
			20				25					30			
Gly	Glu	Gly	Cys	Trp	Arg	Ser	Leu	Pro	Asn	Ala	Ala	Gly	Leu	Leu	Arg
		35				40						45			
Cys	Gly	Lys	Ser	Cys	Arg	Leu	Arg	Trp	Ile	Asn	Tyr	Leu			
	50					55				60					

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<210> 2358
<211> 39
<212> PRT
<213> Pinus radiata
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      <400> 2358
Pro  Asp  Leu  Lys  Arg  Gly  Phe  Phe  Ser  Glu  Asp  Glu  Asp  Asp  Leu  Ile
 1          5          10          15
Leu  Lys  Leu  His  Ala  Leu  Leu  Gly  Asn  Lys  Trp  Ser  Leu  Ile  Ala  Gly
 20          25          30
Arg  Leu  Pro
    35

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<210> 2359
<211> 62
<212> PRT
<213> Pinus radiata
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	<400>	2359													
Met	Gly	Arg	Thr	Pro	Cys	Cys	Glu	Lys	Asn	Ile	Gly	Leu	Lys	Lys	Gly
1				5					10					15	
Pro	Trp	Thr	Pro	Glu	Glu	Asp	Gln	Lys	Leu	Ile	Asp	Tyr	Ile	Gln	Ser
			20					25					30		

His Gly His Gly Ser Trp Arg Ala Leu Pro Lys Arg Ala Gly Leu Leu  
                   35                  40                  45  
 Arg Cys Gly Lys Ser Cys Arg Leu Arg Trp Thr Asn Tyr Leu  
           50                  55                  60

<210> 2360  
 <211> 66  
 <212> PRT  
 <213> Pinus radiata

<400> 2360  
 Pro Asp Ile Lys Arg Gly Gln Phe Ser Phe Glu Glu Glu Gln Thr Ile  
   1                  5                  10                  15  
 Ile Glu Leu His Ala Val Leu Gly Asn Lys Trp Ser Thr Ile Ala Gly  
           20                  25                  30  
 His Leu Pro Gly Arg Thr Asp Asn Glu Ile Lys Asn Tyr Trp Asn Thr  
           35                  40                  45  
 His Leu Lys Lys Arg Leu Leu Gln Met Gly Ile Asp Pro Val Thr His  
           50                  55                  60  
 Arg Pro  
 65

<210> 2361  
 <211> 61  
 <212> PRT  
 <213> Pinus radiata

<400> 2361  
 Met Gly Arg Thr Pro Cys Cys Leu Lys Val Gly Leu Asn Arg Gly Pro  
   1                  5                  10                  15  
 Trp Thr Pro Glu Glu Asp Leu Cys Leu Ser Asn Tyr Ile Glu Ala His  
           20                  25                  30  
 Gly Glu Gly Gly Trp Arg Thr Leu Pro Lys Lys Ala Gly Leu Leu Arg  
           35                  40                  45  
 Cys Gly Lys Ser Cys Arg Leu Arg Trp Met Asn Tyr Leu  
           50                  55                  60

<210> 2362  
 <211> 67  
 <212> PRT  
 <213> Pinus radiata

<400> 2362  
 Pro Asp Val Lys His Gly His Ile Leu Pro Glu Glu Glu Asp Leu Ile  
   1                  5                  10                  15  
 Leu Arg Leu His Arg Leu Leu Gly Asn Arg Trp Ser Leu Ile Ala Gly  
           20                  25                  30  
 Arg Met Pro Gly Arg Thr Asp Asn Glu Val Lys Asn Tyr Trp Asn Thr  
           35                  40                  45  
 His Leu Ser Lys Lys Leu Ile Ser Gln Gly Ile Asp Pro Arg Thr His  
           50                  55                  60  
 Lys Pro Leu  
 65

<210> 2363  
 <211> 61  
 <212> PRT  
 <213> Pinus radiata

<400> 2363  
 Met Gly Arg Ser Pro Cys Cys Glu Lys Ala His Thr Asn Lys Gly Ala

1		5		10		15									
Trp	Thr	Lys	Gln	Glu	Asp	Asp	Arg	Leu	Ile	Ala	His	Ile	Arg	Ala	His
		20		25		30									
Gly	Glu	Gly	Gly	Trp	Arg	Ser	Leu	Pro	Lys	Ala	Ala	Gly	Leu	Leu	Arg
		35		40		45									
Cys	Gly	Lys	Ser	Cys	Arg	Leu	Arg	Trp	Ile	Asn	Tyr	Leu			
	50				55					60					

<210> 2364  
 <211> 67  
 <212> PRT  
 <213> Pinus radiata

Pro	Asp	Leu	Lys	Arg	Gly	Ser	Phe	Thr	Glu	Glu	Glu	Asp	Glu	Leu	Ile
1			5					10					15		
Ile	Lys	Leu	His	Ser	Phe	Val	Gly	Asn	Lys	Trp	Ser	Leu	Ile	Ala	Gly
		20					25					30			
Arg	Leu	Pro	Gly	Arg	Thr	Asp	Asn	Glu	Ile	Lys	Asn	Tyr	Trp	Asn	Thr
	35					40					45				
His	Ile	Lys	Arg	Lys	Leu	Leu	Ser	Lys	Gly	Leu	Asp	Pro	Gln	Thr	His
	50				55						60				
Arg	Pro	Leu													
65															

<210> 2365  
 <211> 61  
 <212> PRT  
 <213> Pinus radiata

Met	Gly	Arg	Ser	Pro	Cys	Cys	Glu	Lys	Ala	His	Thr	Asn	Lys	Gly	Ala
1			5					10					15		
Trp	Thr	Lys	Gln	Glu	Asp	Asp	Arg	Leu	Ile	Ala	His	Ile	Arg	Ala	His
		20					25					30			
Gly	Glu	Gly	Gly	Trp	Arg	Ser	Leu	Pro	Lys	Ala	Ala	Gly	Leu	Leu	Arg
	35					40					45				
Cys	Gly	Lys	Ser	Cys	Arg	Leu	Arg	Trp	Ile	Asn	Tyr	Leu			
	50				55						60				

<210> 2366  
 <211> 67  
 <212> PRT  
 <213> Pinus radiata

Pro	Asp	Leu	Lys	Arg	Gly	Ser	Phe	Thr	Glu	Glu	Glu	Asp	Glu	Leu	Ile
1			5					10					15		
Ile	Lys	Leu	His	Ser	Phe	Val	Gly	Asn	Lys	Trp	Ser	Leu	Ile	Ala	Gly
		20					25					30			
Arg	Leu	Pro	Gly	Arg	Thr	Asp	Asn	Glu	Ile	Lys	Asn	Tyr	Trp	Asn	Thr
	35					40					45				
His	Ile	Lys	Arg	Lys	Leu	Leu	Ser	Lys	Gly	Leu	Asp	Pro	Gln	Thr	His
	50				55						60				
Arg	Pro	Leu													
65															

<210> 2367  
 <211> 61  
 <212> PRT  
 <213> Pinus radiata

&lt;400&gt; 2367

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Met Gly Arg Ser Pro Cys Cys Glu Lys Ala His Thr Asn Lys Gly Ala
 1          5          10          15
Trp Thr Lys Glu Glu Asp Asp Arg Leu Ile Ala His Ile Arg Thr His
          20          25          30
Gly Glu Gly Cys Trp Arg Ser Leu Pro Lys Ala Ala Gly Leu Met Arg
          35          40          45
Cys Gly Lys Ser Cys Arg Leu Arg Trp Ile Asn Tyr Leu
 50          55          60

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&lt;210&gt; 2368

&lt;211&gt; 67

&lt;212&gt; PRT

&lt;213&gt; Pinus radiata

&lt;400&gt; 2368

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Pro Asp Leu Lys Arg Gly Asn Phe Ser Glu Glu Glu Asp Glu Leu Val
 1          5          10          15
Ile Lys Leu His Ser Leu Leu Gly Asn Lys Trp Ser Leu Ile Ala Gly
          20          25          30
Arg Leu Pro Gly Arg Thr Asp Asn Glu Ile Lys Asn Tyr Trp Asn Thr
          35          40          45
His Ile Lys Arg Lys Leu Leu Asn Arg Gly Leu Asp Pro Gln Ser His
 50          55          60
Arg Pro Leu
65

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